

SERVICE
MANUAL

PM-75

4822 725 50864

marantz®

model PM-75

Digital Integrated Amplifier

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ company has created the ultimate in stereo sound.

Only **original MARANTZ parts** can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS:

Parts can be ordered either by mail or by telex. In both cases, correct part number has to be specified. The following information must be supplied to eliminate delays in processing your order:

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature: any order form or telex must be signed otherwise such part order will be considered as null and void.

PARTS ORDERING

Parts may be ordered at the following addresses:

AUSTRIA
HORNYPHON
Vertriebsgesellschaft GmbH
Wienerbergstrasse 1
A 1101 Wien
Austria
Telex: 132.332

FINLAND
MARANTZ
DIVISION OF OY PHILIPS Ab
Kaivokatu 8
00100 Helsinki
Finland
Telex: 124811

BELGIUM
SVD DIVISION MARANTZ
Industrialaan 1
1720 Groot-Bijgaarden
Belgium
Telex: 24466

FRANCE
MARANTZ FRANCE
4 Rue Bernard Palissy
92600 Asnières
France
Telex: 611651

CHILE
MARANTZ
DIVISION OF PHILIPS S.A.
C/ Santa Maria, 0760
Casilla 2687
Santiago
Telex: 240.239

GERMANY
MARANTZ GERMANY GmbH
Alexanderstrasse 1
2000 Hamburg
Germany

THE NETHERLANDS
Elpro Marantz
Wint Hontlaan 28
3526 KV Utrecht
The Netherlands
Telex: 4748

DENMARK
MARANTZ
DIVISION OF PHILIPS
SERVICE A/S
Prags Boulevard 80
Postbox 1919
DK-2300 København S
Denmark
Telex: 31201

NORWAY
MARANTZ
DIVISION OF PHILIPS A/S
Sandstuveien 40
0680 Oslo 6
Norway
Telex: 72640

GREAT BRITAIN
MARANTZ AUDIO U.K. Ltd
Unit 15/16
Saxon Way Industrial Estate
Moor Lane
Harmondsworth UB7 OLW
Great Britain
Telex: 935196

GREECE
SHERTON ELECTRONICS S.A.
P.O.Box 21025
Hippocrates Street 188
Athens 11471
Greece
Telex: 216.795

JAPAN
MARANTZ JAPAN, Inc.
35-1, 7-chome, Sagamiono
Sagamihara-shi, Kanagawa
Japan

KUWAIT
AL ALAMIAH ELECTRONICS
Ussama Building
Fahd al Saleem Street
P.O.Box 23781
Safat-Kuwait
Telex: 22694

ITALY
MARANTZ ITALIANA S.P.A.
Via Chiese, 74
20126 Milano
Italy

SAUDI ARABIA
AL ALAMIAH ELECTRONICS
P.O.Box 5954
University Street
Riyadh 11432
Saudi Arabia
Telex: 401530

SOUTH AFRICA
MARANTZ
DIVISION OF PHILIPS S.A.
Main Road Martindale
P.O. Box. 58088
Newville 21114
South Africa

SPAIN
PHONO S.A.
Ignacio Iglesias 10
Badalona (Barcelona)
Spain
Telex: 59355

SWEDEN
MARANTZ
DIVISION OF PHILIPS
Försäljning AB
Tegeluddsvägen 1
S-115 84 Stockholm
Sweden
Telex: 14060

SWITZERLAND
MARANTZ
Technischer Service
Duenstrasse 3
3186 Düringen
Switzerland

TURKEY
DOGRUOL Ltd.
I.M.C.
6 Blok N°6310
Unkapani
Istanbul
Turkey
Telex: 22085

MALTA
CACHIA & GALEA
Republic Street, 68D
Valetta
Telex: 1682

PORTUGAL
MARANTZ
Divisao philips S.A. service
Ourela-carnaxide
2795 Linda-A-VELHA
Telex: 43906

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please, contact the nearest facility for the necessary assistance.

In case of difficulties, do not hesitate to contact the Technical Department at abovementioned address.

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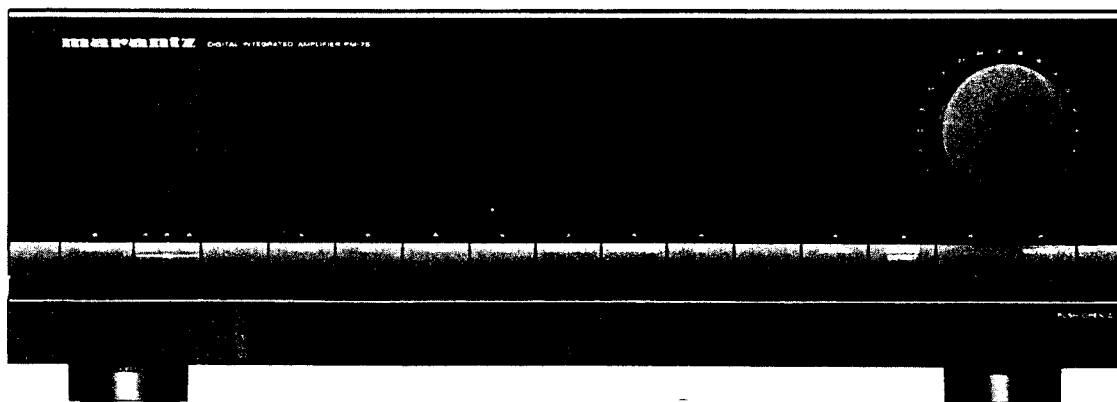
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How to use this service manual

- The "Common parts" which Marantz Japan, Inc. has established are eliminated from this service manual.
- These "Common parts" are applied to all models in the service manuals arranged and issued by MJJ.
- To indicate clearly the common parts in the schematic diagram, a line is drawn above or under the Ref. Desig. No. of applicable parts.
- "Common parts" can be supplied from the Marantz service center as ever.
In case of ordering, please establish the parts number of 12 N/C'S following the procedure mentioned in this service manual "How to establish the parts number for common parts".

1) Please correctly write the parts number of 12 N/C'S following the rule.

MODEL PM-75 DIGITAL INTEGRATED AMPLIFIER



1. P.W. BOARDS

As can be seen from the circuit diagram the chassis of Model PM-75 consists of the following units. Each unit mounted on a printed circuit board is described within the square enclosed by a bold dotted line on the circuit diagram.

1. **Tone/Loudness/Balance** mounted on P.W. Board PE01
2. **Master Volume** mounted on P.W. Board PG01
3. **Motor Volume** mounted on P.W. Board PG51
4. **Tape IN/OUT** mounted on P.W. Board PJ01
5. **Micom** mounted on P.W. Board PU01
6. **Rec Selector** mounted on P.W. Board PU81
7. **Phono Amp/Input** .. mounted on P.W. Board PV01
8. **Speaker Terminal** .. mounted on P.W. Board PW01
9. **Headphone/Speaker Switch** mounted on P.W. Board PW51
10. **D/A Converter IN/OUT** mounted on P.W. Board P101
11. **D/A Converter PLL** mounted on P.W. Board P201
12. **D/A Converter FS IND** mounted on P.W. Board P271
13. **Main Amp** mounted on P.W. Board P701
14. **Power Transformer** mounted on P.W. Board P851
15. **Power Switch** mounted on P.W. Board P901
16. **Power Transformer** mounted on P.W. Board P951

2. ADJUSTMENT PROCEDURE (MAIN IDLING CURRENT)

1. Places for adjustment
Left channel — R751 (470 Ω)
Right channel — R752 (470 Ω)
2. Measuring points
Left channel — TP-1 (–) TP-2 (+)
Right channel — TP-3 (–) TP-4 (+)
3. Steps
 - (1) Connect a DC digital voltmeter to the test points.
(Perform with the variable resistor set at minimum, no load, and the rated power supply voltage.)
 - (2) Apply 6 mV to 8 mV between TP-1 and TP-2, TP-3 and TP-4 (center value 7 mV).
An idling current of 16.7 mA to 22.2 mA will flow at this time.
The current will be approximately 19.4 mA when stabilized.

CAUTION: Conduct with the rated voltage, without gradually increasing the primary side power supply voltage (to prevent malfunction).
Let set for about 1 minute after turning the power on before adjusting.

3. TEST EQUIPMENT REQUIRED FOR SERVICING

This table lists the test equipment required for servicing the Model PM-75 Stereo Amplifier.

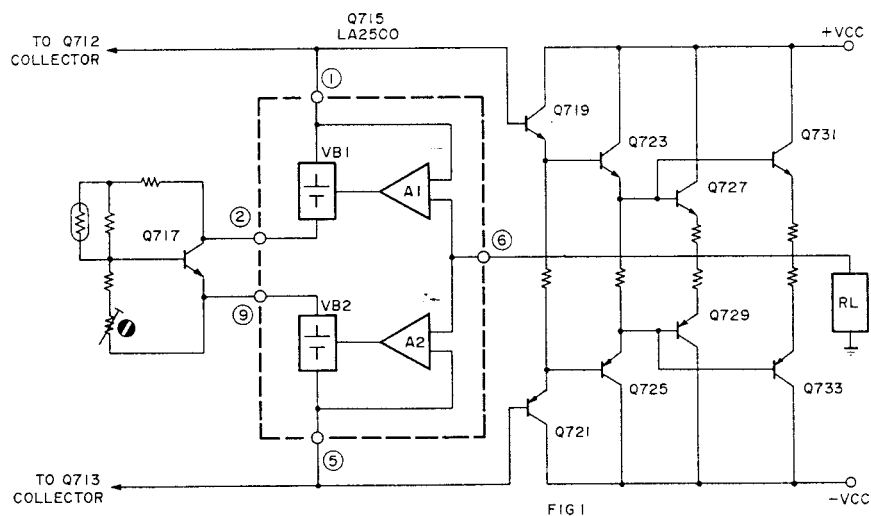
Item	Use
Distortion Analyzer	Distortion measurements
Audio Oscillator	Sinewave and squarewave signal source
ACVTVM	Voltage measurements (AC)
Oscilloscope	Waveform analysis and trouble shooting and ASO alignment
Circuit Tester	Trouble shooting
DCVTVM	Voltage measurements (DC)
AC Wattmeter	Monitors primary power to amplifier
Line Voltmeter	Monitors potential of primary power to amplifier
Variable Autotransformer (0 to 140V AC, 10A)	Adjust level of primery power to amplifier
Shorting Plug	Shorts amplifier input to eliminate noise pickup

4. NON CUT-OFF CIRCUIT

A. Outline of Operation

Fig. 1 shows the configuration of the Power stage of the non cut-off circuit. The section enclosed by dotted lines corresponds to the bias circuit.

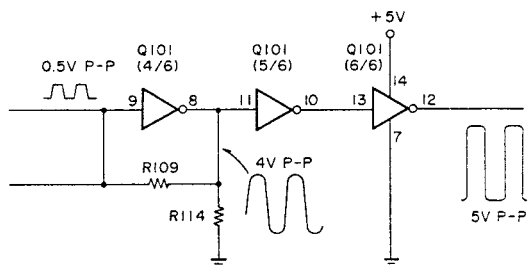
1. A1 and A2 detect the current variation in the Power stage, and apply the input, in the form of current, to the VB1 and VB2.
2. VB1 and VB2 receive the current output from A1 and A2, and convert the current into voltage in order to vary the base bias voltage of the Power stage.
3. Q717 is a constant-voltage circuit which sets the idle current in the Power stage and performs the temperature compensation.



5. DESCRIPTION OF DIGITAL CIRCUIT OPERATIONS

5.1 INPUT CIRCUIT

Q101 (1/6 to 6/6) and Q102 (4/6 to 6/6) make up a circuit which amplifies the 0.5 Vp-p digital signal level to the TTL level of 5 Vp-p and shapes the waveform. The amplifier in the first stage amplifies the signal up to about 4 Vp-p, and the inverter of the second and third stages shapes the waveform and sends the output to the following input selector circuit.



Q103 to Q105 form an input selector circuit using a NAND gate, which is controlled by the μ -COM PU01. The selected signal with the level of 5 Vp-p is sent to the demodulator circuit in the next stage. On the other hand, the selected source signal is also sent to the REC OUT jack. The output at the REC OUT jack is 0.5 Vp-p/75 ohms, so the level with no load is 1 Vp-p.

5.2 DEMODULATOR CIRCUIT

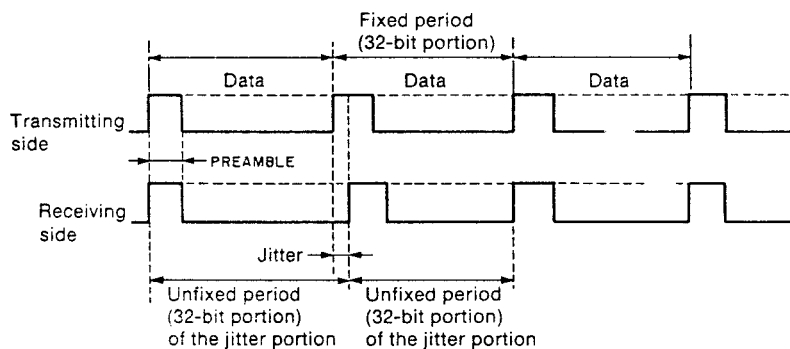
The demodulator (Q201) receives and reproduces the digital audio interface format signal. It incorporates a PLL circuit which is synchronized with the externally-supplied digital audio interface format signal. Therefore, the sampling frequency is automatically set according to the input.

5.3 JITTER KILLER CIRCUIT

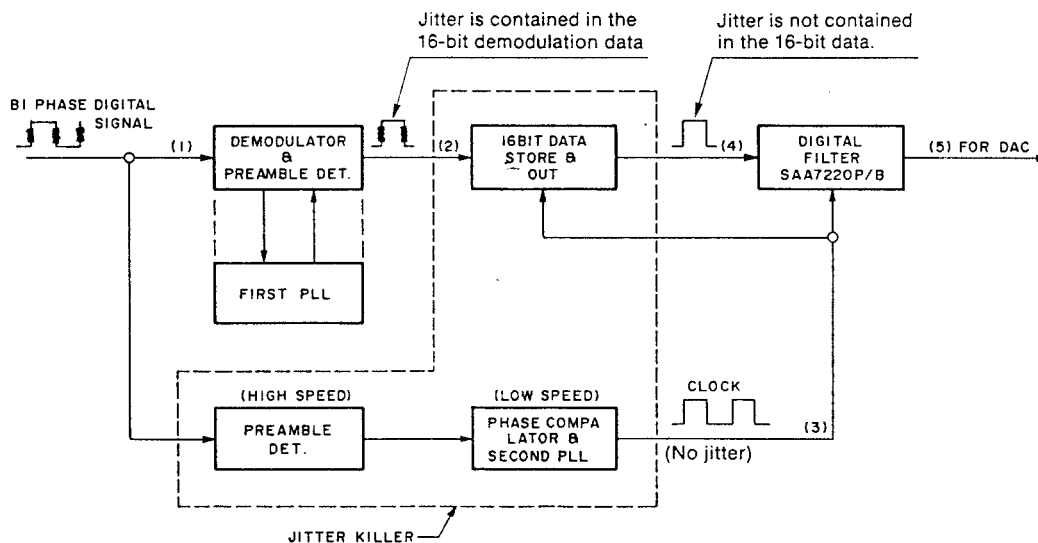
This circuit absorbs jitter (a wavering of the time axis, or a type of shifting distortion) which is generated in the optical transmission system.

The circuit utilizes a twin PLL system with memory. In particular, this circuit is effective in improving the distortion factor in the high region.

5.3.1



5.3.2 Jitter Killer Circuit Diagram



5.4 DIGITAL FILTER

The digital filter (Q222) handles the following functions.

1. Data interpolation in case of error.
2. Attenuation.
3. Muting.
4. Finite impulse response transversal filtering with quadruple oversampling rate.
5. Digital analog output.

5.5 DAC (Q112)

This is a 16-bit dual digital-to-analog converter.

5.6 I/V CONVERTER

- Q115 is the I/V converter, which inputs digital signal of the standard input level (0.5 Vp-p) and outputs an analog output voltage of 2 Vrms at point (A).
- Q113 is the de-emphasis ON/OFF switch which is controlled by Q201.

	Q201 Pin 16 (DEF) Out
a When input data is emphasized	H
b When input data is not emphasized	L

—Twin PLL System with Memory—

In terms of sound quality, the PLL has good slow-speed (narrow bandwidth) characteristics, and good high-speed (wide bandwidth) characteristics from the point of the decoder response, presenting a reciprocal relationship. To deal with this situation, two PLL systems are established, a high-speed type and a slow-speed type. The decoder is controlled by the clock that has a lot of jitter, which has been produced by the high-speed PLL (1st PLL). The digital filter which is highly susceptible to sound quality and the DAC are controlled by the clock that has a small amount of jitter produced by the slow-speed PLL (2nd PLL). Note that the clock of the DAC is not directly supplied from the slow-speed PLL, rather, the supply is from the digital filter.

As a method of increasing the jitter margin, the word memory, which consists of a 16-bit shift register, is arranged in front of the digital filter. Data containing jitter which is sent from the decoder is stored in this memory at once. When a one-word portion (16 bits) of data has accumulated, it is read by the clock that has a small amount of jitter (produced by the slow-speed 2nd PLL) and sent to the digital filter. All this is to say that the jitter contained in the data is absorbed by storing the jitter-containing data to memory by the word unit. Note that this circuit structure is the same as CD-12LE of the high end separate CD.

—Circuit Operation—

1. Preamble Detector (Q213-1/4 to 4/4 and Q220-1/2, 2/2)
This circuit detects the head signal occurring with each sample of 16-bit data and outputs it to the phase comparator (Q221) as a sync signal. The frequency is 88.2 kHz for 44.1 kHz sampling.

2. Second PLL (Low Speed)
This circuit is made up of phase comparator (Q221), low pass filter (Q229 and Q230) used for band control, VCO (Q231) which changes the oscillation frequency by means of the output voltage from the LPF, and frequency demultiplier (Q226-1/2, 2/2) which performs division (by 1/128) while accurately adjusting the duty cycle to 50%.

Concerning the basic operation of the circuit, first, the VCO oscillates at the previously set free-running frequency. Next, this frequency is divided by the demultiplier and the phase of the resultant signal is compared with the phase of the receive data sync signal by the phase comparator. A voltage difference corresponding to the phase difference is produced and fed back to the VCO via the LPF, and the oscillation frequency is changed in the direction that decreases the phase difference. In a short time, the frequency and the phase of the demultiplied signal become roughly equal to the input sync signal and they are locked in this condition. The receive data and the synchronized master clock (11.2896 MHz) pass through the output of the VCO and the NAND gate IC (Q223-3/4) and are then output to the digital filter.

SERVICE INFORMATION

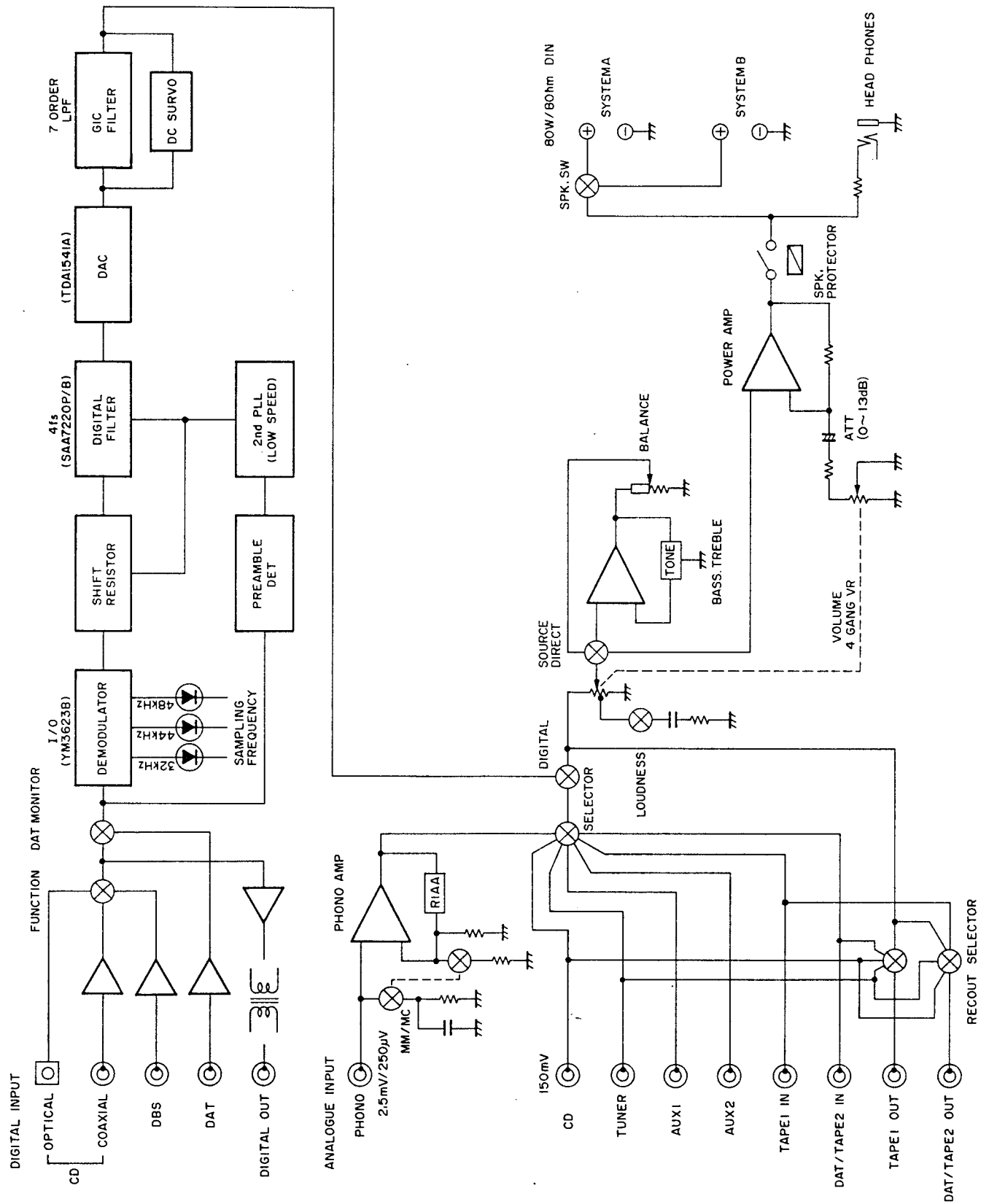
1. Function Initialize (Initial setting)

INPUT SELECTOR — CD
DIGITAL — OFF (ANALOGUE)
SOURCE DIRECT — OFF (TONE IN)
MUTING — OFF

2. SERVICE TEST PROGRAM

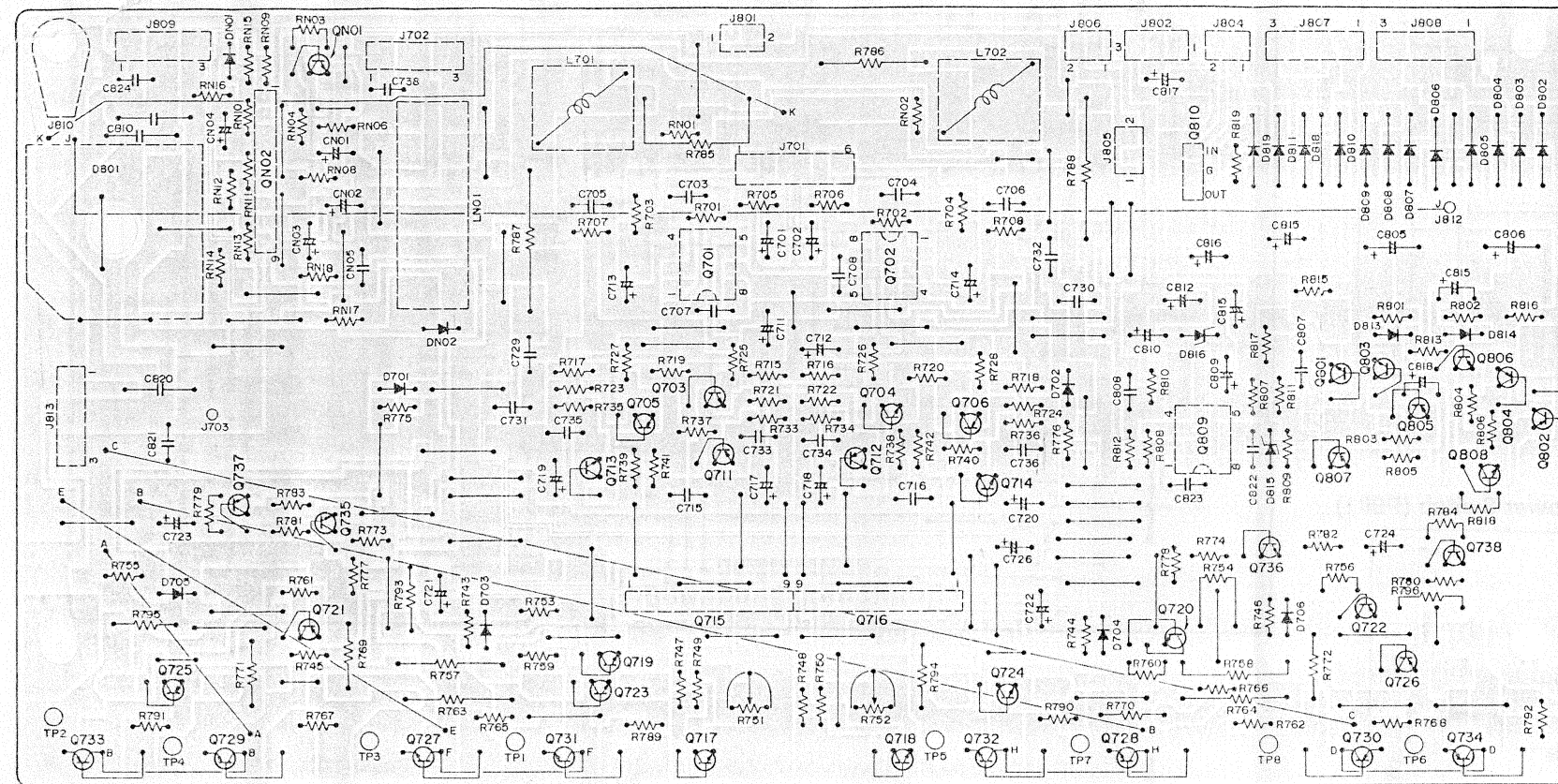
- 2-1. When the POWER is turned ON while pressing the PHONO, AUX 1 and AUX 2 keys simultaneously, the unit enters the test routine. Then, the speaker relay will be turned ON after 5 seconds.
During this period, the volume level will automatically be lowered if the level is raised.
- 2-2. Then, press the CD, TUNER and TAPE 2 keys simultaneously to start test routine. The contents of the test routine is as shown below, and is performed repeatedly.
 - 1) The PHONO, AUX 1, AUX 2, TAPE 1, TAPE 2, TUNER, CD, DIGITAL, DIRECT and MUTING indicators are all lit twice. The setting of the SELECTOR switch is CD at this time.
 - 2) In the above order, the indicator and switch for each function will be changed in sequence, then all indicators will go out.
 - 3) About 5 seconds later, MUTING is turned ON and OFF, then test program is returned to step 1), and performed repeatedly.
- 2-3. To release the test routine, press the DIRECT and MUTING keys simultaneously.

6. BLOCK DIAGRAM

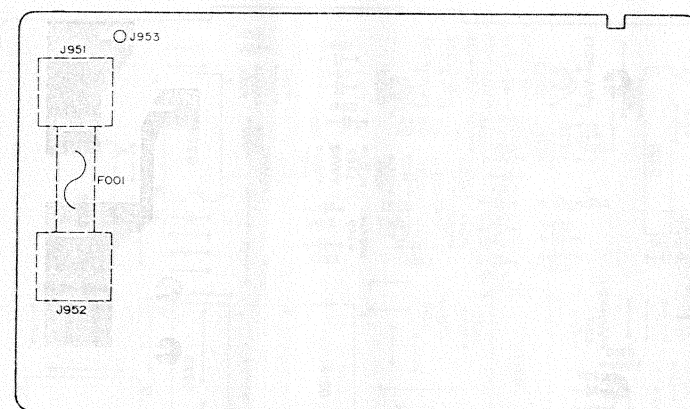


7. PARTS LOCATIONS (Pattern Side)

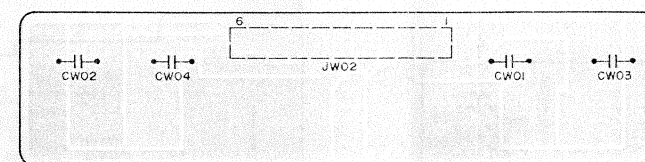
7.1 Main Amp (P701)



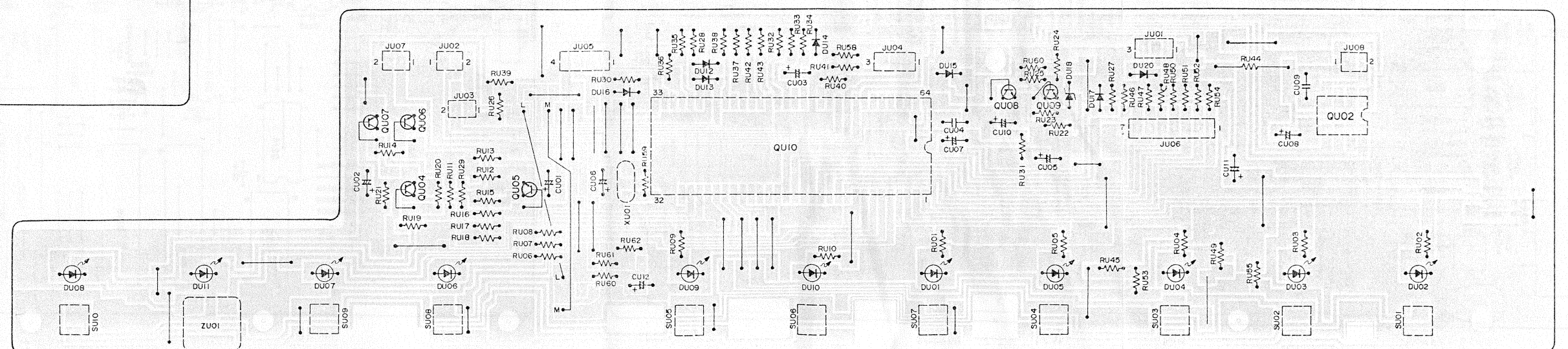
7.2 Power Transformer (P951)



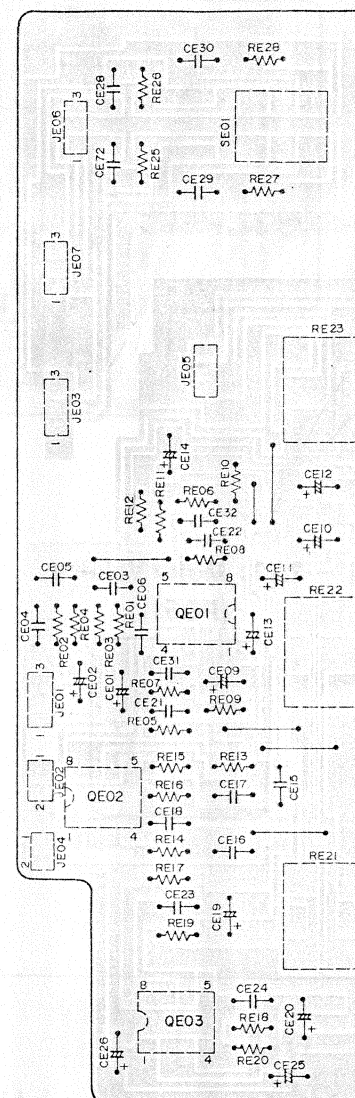
7.3 Speaker Terminal (PW01)



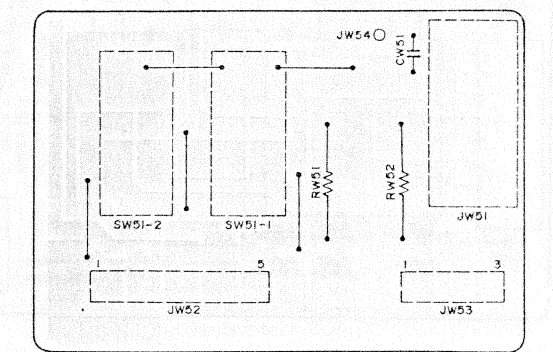
7.8 Micon (PU01)



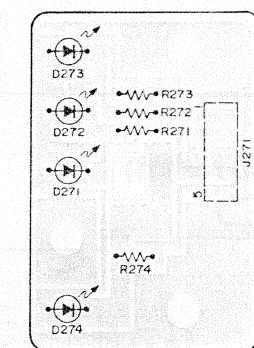
7.4 Tone/Loudness/ Balance Supply (PE01)



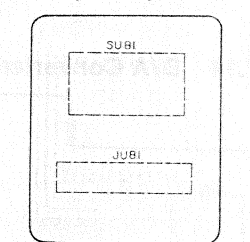
7.5 Headphone/Speaker Switch (PW51)



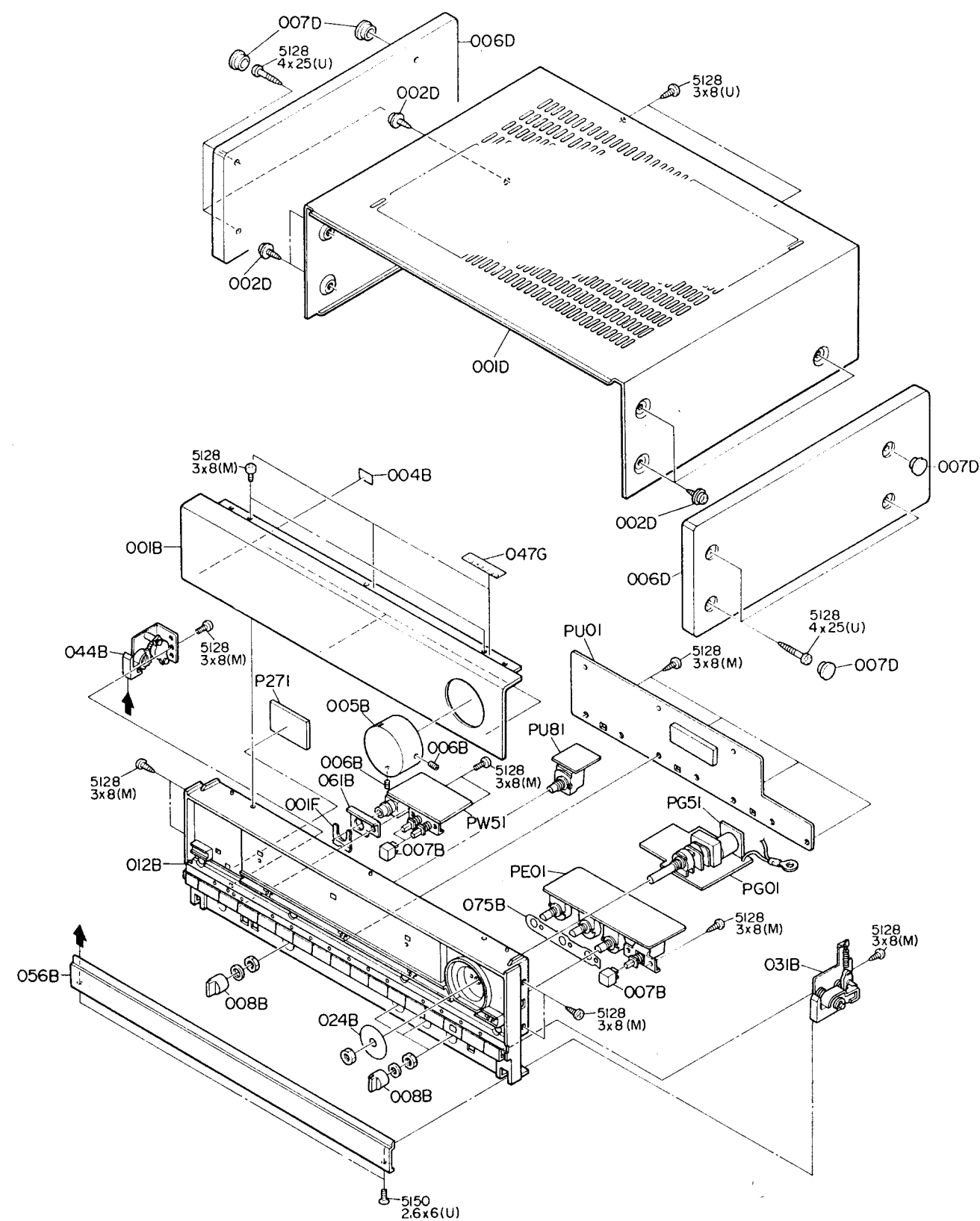
7.6 D/A Converter FS IND (P271)



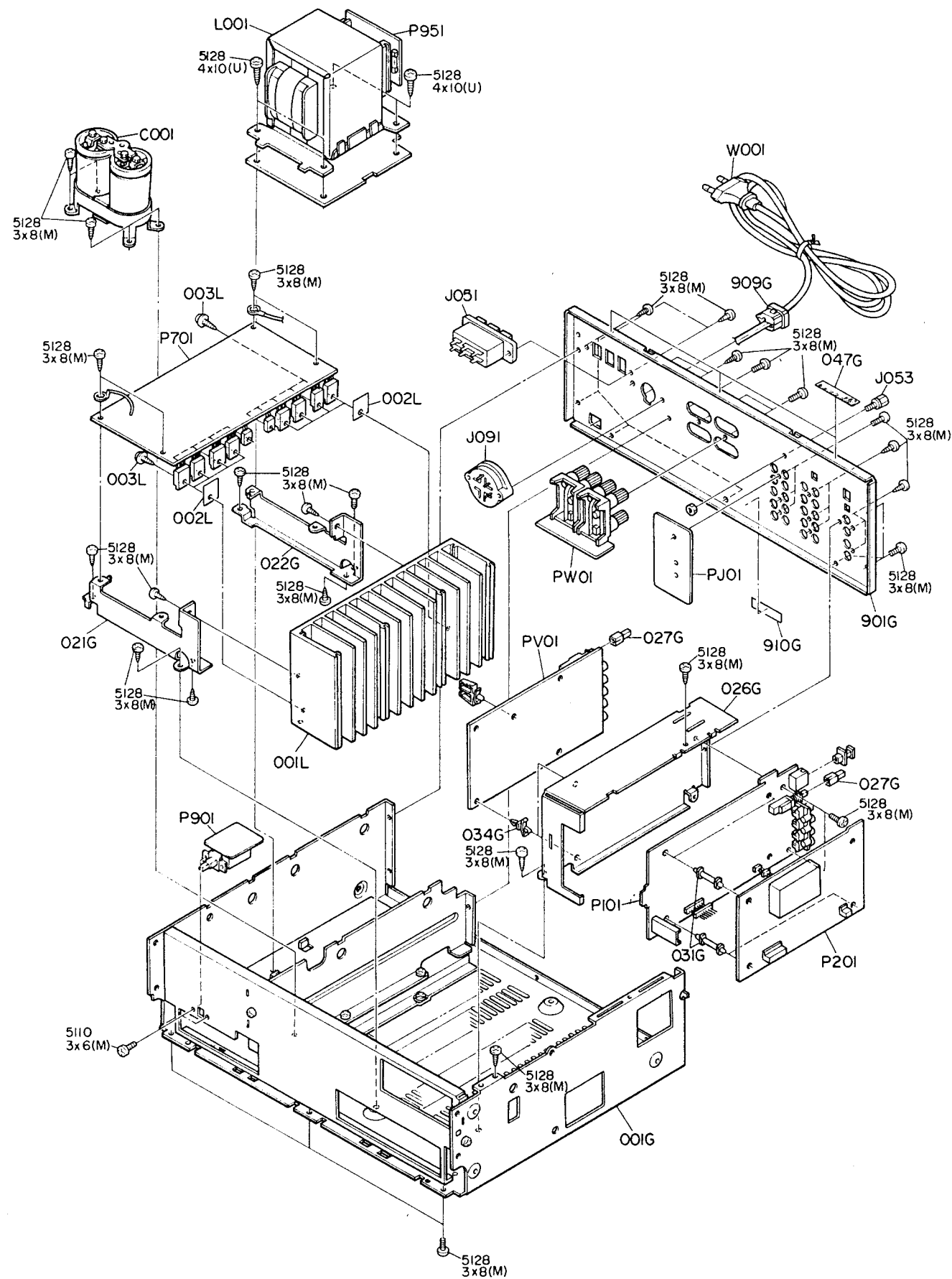
7.7 Rec Selector (PU81)



8. EXPLODED VIEW AND PARTS LIST



REF. DESIG.	PART NO.	DESCRIPTION
001B	4822 443 40738	Front Panel Assembly
007B	4822 410 26801	Button, Speaker/Loudness
008B	4822 413 41477	Knob, Rec/Tone/Balance
012B	4822 464 50747	Chassis Assembly, Front
031B	4822 403 53631	Arm (R) Assembly, Door
044B	4822 403 53632	Arm (L) Assembly, Door
056B	4822 459 80473	Escutcheon, Door
001D	4822 443 40739	Lid, Top Cover
002D	4822 532 11276	B.T. Screw B4 x 8
001F	4822 462 41037	Stopper, Phone Jack
001T	4822 736 20085	User Manual



REF. DESIG.	PART NO.	DESCRIPTION
027G	4822 412 20506	Knob, OPT-COAX/MM-MC
047G	4822 535 71084	Spacer
901G	4822 443 51141	Rear Panel [N]
	4822 443 51142	Rear Panel [A, W]
003L	4822 502 12512	B.T. Screw B3 x 12
△ C001	4822 124 22692	Elect Cap. 1500μF 63V
△ J051	4822 267 30797	Jack, AC Outlet [E]
J053	4822 266 30288	Terminal, GND
△ L001	4822 146 21377	Power Transformer
△ J091	4822 272 10236	Voltage Selector [A, N, W]
	4822 272 10227	Voltage Selector [E]

REF. DESIG.	PART NO.	DESCRIPTION
JG01	4822 265 10078	PG01-MISCELLANEOUS Plug, 3P Plug, 3P Plug, 2P Plug, 3P Plug, 2P Plug, 3P Plug, 2P Plug, 5P
JG02	4822 265 10078	
JG03	4822 265 30641	
JG04	4822 265 10078	
JG05	4822 265 30641	
JG06	4822 265 10078	
JG07	4822 265 30641	
JG10	4822 265 30473	
		PG51-MOTOR VOLUME CIRCUIT BOARD
CG51	4822 122 40491	Ceramic Cap. 0.022μF +80% -20%
JG51	4822 265 30641	Plug, 2P
		PJ01-TAPE IN/OUT CIRCUIT BOARD
CJ01	4822 122 32486	Ceramic Cap. 0.01μF +80% -20%
CJ02	4822 122 32486	Ceramic Cap. 0.01μF +80% -20%
CJ03	4822 122 40617	Ceramic Cap. 0.1μF +80% -20%
JJ01	4822 265 30512	Terminal, 4P; RCA
JJ02	4822 265 30512	Terminal, 4P; RCA
JJ03	4822 266 30236	Terminal, 2P; RCA
		PU01-MICOM CIRCUIT BOARD
		PU01-CAPACITORS
CU01	4822 124 41543	Elect 1μF 50V
CU02	4822 124 90359	Elect 10μF 16V
CU04	4822 122 40491	Ceramic 0.022μF +80% -20%
CU05	4822 124 41592	Elect, Big 0.1F
CU06	4822 124 22274	Elect 4.7μF 50V
CU07	4822 124 41543	Elect 1μF 50V
CU08	4822 124 90352	Elect 10μF 16V
CU09	4822 122 40491	Ceramic 0.022μF +80% -20%
CU10	4822 124 90353	Elect 100μF 10V
CU11	4822 124 22694	Elect 1000μF 6.3V
CU12	4822 124 22273	Elect 0.47μF 50V
		PU01-RESISTORS
Δ RU44	4822 116 60362	68Ω ±5% 1W
		PU01-SEMICONDUCTORS
DU01		
}	4822 130 80326	L.E.D. CT3D8B
DU11		
DU12	4822 130 33305	Diode 1SS176, etc.
DU13	4822 130 33305	Diode 1SS176, etc.
DU15	4822 130 80839	Diode S5688G
DU17	4822 130 33305	Diode 1SS176, etc.
DU18	4822 130 80316	Zener 3.6V
DU20	4822 130 80839	Diode S5688G
QU01	4822 209 73259	Microprocessor LC6554H
QU02	4822 209 73287	IC LB1630
QU04	4822 130 60107	Transistor 2SA1048(Y, GR)
QU05	4822 130 60839	Transistor 2SC2458(Y, GR)
QU06	4822 130 60839	Transistor 2SC2458(Y, GR)
QU07	4822 130 60107	Transistor 2SA1048(Y, GR)
QU08	4822 130 60839	Transistor 2SC2458(Y, GR)
QU09	4822 130 60839	Transistor 2SC2458(Y, GR)
QU10	4822 130 60839	Transistor 2SC2458(Y, GR)

REF. DESIG.	PART NO.	DESCRIPTION		
JU03	4822 265 30641	PU01-MISCELLANEOUS Plug, 2P		
SU01 } SU10	4822 276 12455	Push Switch, Tact		
XU01	4822 242 72221	Ceramic Vibrator, CST4.00MT		
ZU01	4822 130 10009	Photo Unit		
		PU81-REC SELECTOR CIRCUIT BOARD		
SU81	4822 273 80336	Rotary Switch, Rec Selector		
		PV01-PHONO AMP/INPUT CIRCUIT BOARD		
		PV01-CAPACITORS		
CV01 }	4822 122 32486	Ceramic	0.01μF	+80% —20%
CV08				
CV13	4822 124 22274	Elect	4.7μF	50V
CV14	4822 124 22274	Elect	4.7μF	50V
CV15	4822 124 22274	Elect	4.7μF	50V
CV16	4822 124 22274	Elect	4.7μF	50V
C401	4822 121 42894	Film	150pF	±5% [A,E,W]
C402	4822 121 42894	Film	150pF	±5% [A,E,W]
C407	4822 124 22279	Elect	2200μF	6.3V
C408	4822 124 22279	Elect	2200μF	6.3V
C415	4822 124 22571	Elect	10μF	50V
C416	4822 124 22571	Elect	10μF	50V
C419	4822 124 22274	Elect	4.7μF	50V
C420	4822 124 22274	Elect	4.7μF	50V
C421	4822 124 22278	Elect	51μF	10V
C422	4822 124 22278	Elect	51μF	10V
		PV01-SEMICONDUCTORS		
D401	4822 130 33305	Diode	1SS176, etc.	
D402	4822 130 33305	Diode	1SS176, etc.	
QV01	4822 209 72357	IC	LC7821	
QV02	4822 209 72357	IC	LC7821	
QV08	4822 130 60839	Transistor	2SC2458(Y, GR)	
QV09	4822 130 60107	Transistor	2SA1048(Y, GR)	
QV10	4822 130 60107	Transistor	2SA1048(Y, GR)	
QV11	4822 209 83804	IC	LC4966	
Q401 }	4822 130 42839	F.E.T.	2SK369(BL)	
Q404				
Q405	4822 130 43233	Transistor	2SC2240(GR, BL)	
Q406	4822 130 43233	Transistor	2SC2240(GR, BL)	
Q407	4822 209 73064	IC	NJM2068DD	
		PV01-MISCELLANEOUS		
JV01	4822 267 20348	Terminal, 4P; RCA		
JV02	4822 266 30285	Terminal, 6P; RCA		
JV04	4822 265 30641	Plug, 2P		
JV05	4822 265 10078	Plug, 3P		
JV06	4822 265 10078	Plug, 3P		

9. ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTOR

R***: (1) GD05 --- 140, Carbon film fixed resistor, $\pm 5\%$, 1/4W

R***: (2) GD05 --- 160, Carbon film fixed resistor, $\pm 5\%$, 1/6W

① — Resistance value

Examples

① Resistance value

0.1 Ω ...001	10 Ω ...100	1k Ω ...102	100k Ω ...104
0.5 Ω ...005	18 Ω ...180	2.7k Ω ...272	680k Ω ...684
1 Ω ...010	100 Ω ...101	10k Ω ...103	1Mk Ω ...105
6.8 Ω ...068	390 Ω ...391	22k Ω ...223	4.7Mk Ω ...475

(Note) Please distinguish 1/4W from 1/6W by the shape of parts used actually.

C***: CERAMIC CAP.

(1) DD1 --- 370, Ceramic condenser

Disc type

Temp. coeff. P350 ~ N1000, 50V

① ②

Capacity value

Tolerance

Examples

① Tolerance (Capacity deviation)

$\pm 0.25\text{pF}$...0

$\pm 0.5\text{pF}$...1

$\pm 5\%$...5

* Tolerance of COMMON PARTS handled here are as follows:

0.5pF ~ 5pF... $\pm 0.25\text{pF}$

6pF ~ 10pF... $\pm 0.5\text{pF}$

12pF ~ 560pF... $\pm 5\%$

② Capacity value

0.5pF...005 3pF...030 100pF...101

1pF...010 10pF...100 220pF...221

1.5pF...015 47pF...470 560pF...561

C***: CERAMIC CAP.

(1) DK16 --- 300, High dielectric constant ceramic condenser

Disc type

Temp. chara. 2B4, 50V

①

Capacity value

Example

② Capacity value

100pF...101 1000pF...102 10000pF...103

470pF...471 2200pF...222

C***: ELECTROLY CAP. (---), FILM CAP. (---)

(1) EA --- 10, Electrolytic condenser

One-way lead type, Tolerance $\pm 20\%$

① ②

Dielectric strength

Capacity value

Examples

① Capacity value

0.1 μF ...104 4.7 μF ...475 100 μF ...107

0.33 μF ...334 10 μF ...106 330 μF ...337

1 μF ...105 22 μF ...226 1100 μF ...108

2200 μF ...228

② Working voltage

6.3V...006 25V...025

10V...010 35V...035

16V...016 50V...050

(2) DF15 --- 350, Plastic film condenser

One-way type, Mylar $\pm 5\%$ 50V

①

Capacity value

Examples

① Capacity value

0.001 μF (1000pF)...102 0.1 μF ...104

0.0018 μF ...182 0.56 μF ...564

0.01 μF ...103 1 μF ...105

0.015 μF ...153

REF. DESIG.	PART NO.	DESCRIPTION
PE01-TONE/LOUDNESS/BALANCE CIRCUIT BOARD		
PE01-CAPACITORS		
CE01	4822 124 22571	Elect 10 μF 50V
CE02	4822 124 22571	Elect 10 μF 50V
CE03	4822 121 42712	Film 100pF $\pm 5\%$
CE09	4822 124 22276	Elect 47 μF 50V
CE10	4822 124 22276	Elect 47 μF 50V
CE11	4822 124 22698	Elect 47 μF 25V
CE12	4822 124 22698	Elect 47 μF 25V
CE13	4822 124 22571	Elect 10 μF 50V
CE14	4822 124 22571	Elect 10 μF 50V
CE17	4822 121 51348	Film 56pF $\pm 10\%$
CE18	4822 121 51348	Film 56pF $\pm 10\%$
CE19	4822 124 22696	Elect 3.3 μF 50V
CE20	4822 124 22696	Elect 3.3 μF 50V
CE21	4822 122 32143	Ceramic 22pF $\pm 5\%$
CE22	4822 122 32143	Ceramic 22pF $\pm 5\%$
CE25	4822 124 22274	Elect 4.7 μF 50V
CE26	4822 124 22274	Elect 4.7 μF 50V
CE27	4822 121 42872	Film 1000pF $\pm 5\%$
CE28	4822 121 42872	Film 1000pF $\pm 5\%$
PE01-RESISTORS		
RE21	4822 101 30574	20K Ω , Variable; Bass
RE22	4822 101 30574	20K Ω , Variable; Treble
RE23	4822 101 30575	50K Ω , Variable; Balance
PE01-SEMICONDUCTORS		
QE01	4822 209 83631	IC NJM4558D-D
QE02	4822 209 83631	IC NJM4558D-D
QE03	4822 209 83631	IC NJM4558D-D
PE01-MISCELLANEOUS		
JE01	4822 265 10078	Plug, 3P
JE02	4822 265 30641	Plug, 2P
JE03	4822 265 10078	Plug, 3P
JE04	4822 265 30641	Plug, 2P
JE05	4822 265 10078	Plug, 3P
JE06	4822 265 10078	Plug, 3P
JE07	4822 265 10078	Plug, 3P
SE01	4822 276 12504	Push Switch, Loudness
PG01-MASTER VOLUME CIRCUIT BOARD		
PG01-CAPACITORS		
CG02	4822 124 22274	Elect 4.7 μF 50V
CG04	4822 124 22274	Elect 4.7 μF 50V
CG05	4822 124 41543	Elect 1 μF 50V
PG01-RESISTORS		
RG19	4822 101 30573	500 Ω , 50K Ω (B) Motor; Variable
PG01-SEMICONDUCTORS		
QG01	4822 209 83804	IC LC4966
QG02	4822 209 83804	IC LC4966
QG03	4822 130 43819	Transistor 2SC2878(A)
QG04	4822 130 43819	Transistor 2SC2878(A)
QG05	4822 130 60107	Transistor 2SA1048(Y, GR)
QG06	4822 130 60839	Transistor 2SC2458(Y, GR)
QG07	4822 130 60107	Transistor 2SA1048(Y, GR)
QG08	4822 130 60107	Transistor 2SA1048(Y, GR)

REF. DESIG.	PART NO.	DESCRIPTION
L401	4822 156 11019	Choke Coil, 320 μ H [N]
L402	4822 156 11019	Choke Coil, 320 μ H [N]
S401	4822 276 20468	Push Switch, MC/MM
PW01-SPEAKER TERMINAL CIRCUIT BOARD		
JW01	4822 266 30323	Terminal, Speaker [N]
JW02	4822 265 20205	Plug, 3P
JW03	4822 265 20205	Plug, 3P
JW04	4822 265 10093	Jack, 3P
JW05	4822 265 10093	Jack, 3P
PW51-HEADPHONE/SPEAKER SWITCH CIRCUIT BOARD		
CW51	4822 122 40516	Ceramic Cap. 0.01 μ F +80% -20% [N]
RW51	4822 111 50474	Resistor 330 Ω \pm 5% 1W
RW52	4822 111 50474	Resistor 330 Ω \pm 5% 1W
JW51	4822 264 10132	Jack, Headphone (GLD)
	4822 267 30617	Jack, Headphone (BLK)
JW52	4822 265 10117	Plug, 5P
JW53	4822 265 20205	Plug, 3P
SW51	4822 276 20467	Push Switch
P101-D/A CONVERTER IN/OUT CIRCUIT BOARD		
P101-CAPACITORS		
C101	4822 124 22275	Elect 47 μ F 10V
C102	4822 122 40306	Ceramic 0.047 μ F +80% -20%
C103	4822 122 32143	Ceramic 22pF \pm 5%
C104	4822 124 22275	Elect 47 μ F 10V
C106	4822 124 22275	Elect 47 μ F 10V
C108	4822 124 22275	Elect 47 μ F 10V
C110	4822 122 40306	Ceramic 0.047 μ F +80% -20%
C111	4822 124 22275	Elect 47 μ F 10V
C112	4822 122 40306	Ceramic 0.047 μ F +80% -20%
C113	4822 122 40306	Ceramic 0.047 μ F +80% -20%
C114	4822 122 40306	Ceramic 0.047 μ F +80% -20%
C115	4822 122 40617	Ceramic 0.1 μ F +80% -20%
C128		
C130	4822 121 42713	Film 680pF \pm 5%
C131	4822 124 41539	Elect 47 μ F 16V
C132	4822 122 40306	Ceramic 0.047 μ F +80% -20%
C133	4822 122 40306	Ceramic 0.047 μ F +80% -20%
C134	4822 124 90363	Elect 220 μ F 10V
C135	4822 124 41539	Elect 47 μ F 16V
C136	4822 124 22275	Elect 47 μ F 10V
C137	4822 122 40306	Ceramic 0.047 μ F +80% -20%
C138	4822 124 41539	Elect 47 μ F 16V
C139	4822 124 22275	Elect 47 μ F 10V
C140	4822 122 40306	Ceramic 0.047 μ F +80% -20%
C145	4822 121 42713	Film 6800pF \pm 5%
C146	4822 121 42713	Film 6800pF \pm 5%
C153	4822 124 22571	Elect 10 μ F 50V
C154	4822 124 22571	Elect 10 μ F 50V
C155	4822 124 22571	Elect 10 μ F 50V

REF. DESIG.	PART NO.	DESCRIPTION
C156	4822 124 22571	Elect 10 μ F 50V
C171	4822 124 22571	Elect 10 μ F 50V
C172	4822 124 22571	Elect 10 μ F 50V
C173	4822 124 22571	Elect 10 μ F 50V
C174	4822 124 22571	Elect 10 μ F 50V
C185	4822 124 22571	Elect 10 μ F 50V
C186	4822 124 22571	Elect 10 μ F 50V
C187	4822 124 22571	Elect 10 μ F 50V
C188	4822 124 22571	Elect 10 μ F 50V
C189	4822 121 42738	Film 820pF \pm 5%
C190	4822 121 42738	Film 820pF \pm 5%
C191	4822 124 90371	Elect 470 μ F 10V
C193	4822 122 40306	Ceramic 0.047 μ F +80% -20%
C194	4822 122 40617	Ceramic 0.01 μ F +80% -20%
C196	4822 122 40516	Ceramic 0.01 μ F +80% -20%
P101-RESISTORS		
Δ R128	4822 116 60246	220 Ω \pm 5% 1W
Δ R129	4822 116 60246	220 Ω \pm 5% 1W
Δ R130	4822 115 90314	68 Ω \pm 2% 1/4W
P101-SEMICONDUCTORS		
D101	4822 130 80322	Zener NTJ15B
D104	4822 130 80132	Zener 3.9V
Q101	4822 209 72323	IC TC74HCU04P
Q102	4822 209 72323	IC TC74HCU04P
Q103	4822 209 72322	IC TC74HC00P
Q104	4822 209 72322	IC TC74HC00P
Q105	4822 209 72322	IC TC74HC00P
Q106	4822 130 42591	Transistor 2SA1175(FF, EF)
Q107	4822 130 60839	Transistor 2SC2458(Y, GR)
Q108	4822 130 60839	Transistor 2SC2458(Y, GR)
Q109	4822 130 42591	Transistor 2SA1175(FF, EF)
Δ Q110	4822 209 70082	IC NJM78L05A
Δ Q111	4822 209 83825	IC NJM79L05A
Q112	4822 209 72969	IC TDA1541A/N2
Q113	4822 130 42842	F.E.T. 2SK372(GR, BL)
Q114	4822 130 42842	F.E.T. 2SK372(GR, BL)
Q115	4822 209 73064	IC NJM2068DD
Q116	4822 209 73064	IC NJM2068DD
Q117		
Q122	4822 209 83274	IC NJM4560D-D
Q123	4822 209 73064	IC NJM2068DD
Δ Q124	4822 209 83824	IC NJM7805FA
Q125	4822 130 43819	Transistor 2SC2878(A)
Q126	4822 130 43819	Transistor 2SC2878(A)
Q127	4822 130 43819	Transistor 2SC2878(A)
Q128	4822 130 43819	Transistor 2SC2878(A)
P101-MISCELLANEOUS		
J101	4822 264 30217	Jack, OPT Connector
J102	4822 266 30324	Terminal, Digital Input
J105	4822 265 10078	Plug, 3P
J106	4822 265 30641	Plug, 2P
J107	4822 265 30641	Plug, 2P
L101	4822 157 53801	Choke Coil, 47 μ H
L102	4822 157 53801	Choke Coil, 47 μ H
L103	4822 142 60388	Pulse Transformer
L104	4822 157 53801	Choke Coil, 47 μ H
S101	4822 276 20458	Push Switch

REF. DESIG.	PART NO.	DESCRIPTION		
		P201-D/A CONVERTER PLL CIRCUIT BOARD		
		P201-CAPACITORS		
C201	4822 122 32143	Ceramic	22pF	±5%
C203	4822 122 32143	Ceramic	22pF	±5%
C204	4822 122 32143	Ceramic	22pF	±5%
C205	4822 124 90352	Elect	10μF	16V
C206	4822 124 41543	Elect	1μF	50V
C207	4822 124 22273	Elect	0.47μF	50V
C208	4822 124 22273	Elect	0.47μF	50V
C209	4822 122 33656	Ceramic	39pF	±5%
C210	4822 122 33657	Ceramic	56pF	±5%
C211	4822 121 42713	Film	680pF	±5%
C212	4822 122 32143	Ceramic	22pF	±5%
C213	4822 122 32143	Ceramic	22pF	±5%
C215	4822 122 40306	Ceramic	0.047μF	+80% -20%
C216	4822 122 40306	Ceramic	0.047μF	+80% -20%
C217	4822 121 51382	Film	560pF	±5%
C218	4822 124 90352	Elect	10μF	16V
C219	4822 122 40306	Ceramic	0.047μF	+80% -20%
C221	4822 124 41543	Elect	1μF	50V
C222	4822 124 90357	Elect	2.2μF	50V
C223	4822 122 40306	Ceramic	0.047μF	+80% -20%
C224	4822 122 40306	Ceramic	0.047μF	+80% -20%
C225	4822 122 40306	Ceramic	0.047μF	+80% -20%
C226	4822 122 40306	Ceramic	0.047μF	+80% -20%
C228	4822 124 41539	Elect	47μF	16V
C229	4822 124 22698	Elect	47μF	25V
C230	4822 122 40617	Ceramic	0.1μF	+80% -20%
C232	4822 124 41543	Elect	1μF	50V
C233	4822 121 42713	Film	680pF	±5%
C234	4822 122 32143	Ceramic	22pF	±5%
C238	4822 124 41543	Elect	1μF	50V
C239	4822 122 40617	Ceramic	0.1μF	+80% -20%
C240	4822 122 32832	Ceramic	1000pF	+80% -20%
C241	4822 124 41543	Elect	1μF	50V
C242	4822 122 32486	Ceramic	0.01μF	+80% -20%
C243	4822 122 40306	Ceramic	0.047μF	+80% -20%
C244	4822 122 32486	Ceramic	0.01μF	+80% -20%
C245				
}				
C251	4822 122 40306	Ceramic	0.047μF	+80% -20%
		P201-RESISTORS		
R200	4822 116 60321		1Ω	±5% 1W
R220	4822 116 80251		100KΩ	±1% 1/6W
R221	4822 116 80959		7.5KΩ	±1% 1/6W
R223	4822 116 80958		20KΩ	±1% 1/6W
R224	4822 116 80957		13.3KΩ	±1% 1/6W
Δ R251	4822 115 90314		68Ω	±2% ¼W
		P201-SEMICONDUCTORS		
D201				
}				
D207	4822 130 33305	Diode	1SS176, etc.	
D208	4822 130 80302	Varistor	MA27A	
D209	4822 130 80302	Varistor	MA27A	
D210	4822 130 31542	Varicap	SVC321SP	

REF. DESIG.	PART NO.	DESCRIPTION		
Q201	4822 209 73668	IC	YM3623B	
Q202	4822 209 11767	IC	4555	
Q203				
}	4822 130 60839	Transistor	2SC2458(Y, GR)	
Q208				
Q209	4822 130 42591	Transistor	2SA1175(FF, EF)	
Q210	4822 130 42591	Transistor	2SA1175(FF, EF)	
Q211	4822 130 42591	Transistor	2SA1175(FF, EF)	
Q212	4822 130 42591	Transistor	2SA1175(FF, EF)	
Q213	4822 209 73676	IC	TC74HC86P	
Q214	4822 209 72322	IC	TC74HC00P	
Q215	4822 209 73679	IC	HD74HC673	
Q216	4822 209 73681	IC	HD74HC674	
Q217	4822 209 73677	IC	TC74HC123P	
Q218	4822 209 72333	IC	TC74HC74P	
Q219	4822 209 72333	IC	TC74HC74P	
Q220	4822 209 73677	IC	TC74HC123P	
Q221	4822 209 73671	IC	TC5081AP	
Q222	4822 209 72545	IC	SAA7220P/B	
Q223	4822 209 73675	IC	TC74HC08P	
Q224	4822 209 72333	IC	TC74HC74P	
Q225	4822 209 72333	IC	TC74HC74P	
Q226	4822 209 73678	IC	TC74HC393P	
Q227	4822 209 73677	IC	TC74HC123P	
Q228	4822 209 72323	IC	TC74HCU04P	
Q229	4822 130 42842	F.E.T.	2SK372(GR, BL)	
Q230	4822 130 60839	Transistor	2SC2458(Y, GR)	
Q231	4822 130 61357	F.E.T.	2SK161(GR)	
Q232	4822 130 60839	Transistor	2SC2458(Y, GR)	
J202	4822 265 30639	P201-MISCELLANEOUS Plug, 3P		
L201	4822 157 53799	Choke Coil, 1.5μH		
L202	4822 152 20662	Choke Coil, 150μH		
X201	4822 242 72334	Crystal, 16.9344MHz		
		P271-D/A CONVERTER FS IND. CIRCUIT BOARD		
D271	4822 130 80326	L.E.D.	LT3D8B	
D272	4822 130 80326	L.E.D.	LT3D8B	
D273	4822 130 80326	L.E.D.	LT3D8B	
D274	4822 130 80326	L.E.D.	LT3D8B	
		P701-MAIN AMP CIRCUIT BOARD		
		P701-CAPACITORS		
CN01	4822 124 22276	Elect	47μF	50V
CN02	4822 124 90361	Elect	22μF	25V
CN04	4822 124 41543	Elect	1μF	50V
CN05	4822 121 42708	Film	330pF	±5%
C701	4822 124 22571	Elect	10μF	50V
C702	4822 124 22571	Elect	10μF	50V
C703	4822 121 42712	Film	100pF	±5%
C704	4822 121 42712	Film	100pF	±5%
C705	4822 123 30077	Mica	15pF	±5%
C706	4822 123 30077	Mica	15pF	±5%
C707	4822 123 30088	Mica	10pF	±0.5pF
C711	4822 124 22571	Elect	10μF	50V
C712	4822 124 22571	Elect	10μF	50V
C713	4822 124 41541	Elect	470μF	35V

REF. DESIG.	PART NO.	DESCRIPTION			
C714	4822 124 41541	Elect	470μF	35V	
C715	4822 121 42708	Film	330pF ±5%		
C716	4822 121 42708	Film	330pF ±5%		
C717	4822 124 22693	Elect	10μF	63V	
C718	4822 124 22693	Elect	10μF	63V	
C719	4822 124 22693	Elect	10μF	63V	
C720	4822 124 22693	Elect	10μF	63V	
C721	4822 124 22693	Elect	10μF	63V	
C722	4822 124 22693	Elect	10μF	63V	
C723	4822 124 22693	Elect	10μF	63V	
C724	4822 124 22273	Elect	10μF	63V	
C733	4822 122 31205	Film	47pF ±5%		
C734	4822 122 31205	Film	47pF ±5%		
C735	4822 122 31205	Film	47pF ±5%		
C736	4822 122 31205	Film	47pF ±5%		
C738	4822 122 32486	Ceramic	0.01μF +80% -20%		
C801	4822 122 40545	Ceramic	0.01μF ±10%		
C802	4822 122 40545	Ceramic	0.01μF ±10%		
C805	4822 124 22695	Elect	2200μF	35V	
C806	4822 124 22695	Elect	2200μF	35V	
C807	4822 121 42712	Film	100pF ±5%		
C808	4822 121 42712	Film	100pF ±5%		
C809	4822 124 90359	Elect	100μF	10V	
C810	4822 124 90359	Elect	100μF	10V	
C811	4822 124 41535	Elect	100μF	25V	
C812	4822 124 41535	Elect	100μF	25V	
C815	4822 124 22697	Elect	3300μF	10V	
C816	4822 124 22275	Elect	47μF	10V	
C817	4822 124 22275	Elect	47μF	10V	
C818	4822 124 90361	Elect	22μF	25V	
C819	4822 124 90361	Elect	22μF	25V	
C820	4822 121 42643	Film	0.1μF	10%	
C821	4822 121 42643	Film	0.1μF	10%	
P701-RESISTORS					
RN17	4822 116 60416		1KΩ ±5%	¼W	
ΔR743	4822 115 90198	33Ω, Fuse ±2% ¼W			
ΔR746					
R751	4822 100 11426	470Ω, Trimming			
R752	4822 100 11426	470Ω, Trimming			
ΔR753	4822 115 90166		10Ω ±2%	¼W	
ΔR754	4822 115 90166		10Ω ±2%	¼W	
ΔR755	4822 115 90166		10Ω ±2%	¼W	
ΔR756	4822 115 90166		10Ω ±2%	¼W	
R759	4822 111 91291	10Ω ±5% 1/6W			
R762					
ΔR763	4822 116 60319		220Ω ±5%	¼W	
ΔR764	4822 116 60319		220Ω ±5%	¼W	

REF. DESIG.	PART NO.	DESCRIPTION			
ΔR769	4822 116 80153		0.18Ω ±10%	5W	
ΔR770	4822 116 80153		0.18Ω ±10%	5W	
ΔR771	4822 116 80153		0.18Ω ±10%	5W	
ΔR772	4822 116 80153		0.18Ω ±10%	5W	
ΔR785	4822 116 60246		220Ω ±5%	1W	
ΔR786	4822 116 60246		220Ω ±5%	1W	
ΔR787	4822 111 90726		10Ω ±5%	2W	
ΔR788	4822 111 90726		10Ω ±5%	2W	
ΔR793	4822 116 80153		0.18Ω ±10%	5W	
ΔR794	4822 116 80153		0.18Ω ±10%	5W	
ΔR795	4822 116 80153		0.18Ω ±10%	5W	
ΔR796	4822 116 80153		0.18Ω ±10%	5W	
ΔR815	4822 116 52976		1Ω ±5%	¼W	
ΔR816	4822 116 52976		1Ω ±5%	¼W	
ΔR817	4822 116 60309		2.2Ω ±5%	¼W	
ΔR818	4822 116 60309		2.2Ω ±5%	¼W	
ΔR819	4822 116 60307		1Ω ±5%	¼W	
P701-SEMICONDUCTORS					
DN01	4822 130 80837	Diode	HSS81TD		
DN02	4822 130 80837	Diode	HSS81TD		
D701	4822 130 80837	Diode	HSS81TD		
D702	4822 130 80837	Diode	HSS81TD		
ΔD801	4822 130 33132	Diode	D5FB20		
ΔD802	4822 130 32508	Diode RL103E, etc.			
ΔD811					
D813	4822 130 33305	Diode	1SS176, etc.		
D814	4822 130 33305	Diode	1SS176, etc.		
D815	4822 130 33948	Zener	HZ6LA3		
D816	4822 130 33948	Zener	HZ6LA3		
ΔD818	4822 130 32508	Diode	RL103E, etc.		
ΔD819	4822 130 32508	Diode	RL103E, etc.		
D820	4822 130 33305	Diode	1SS176, etc.		
D821	4822 130 33305	Diode	1SS176, etc.		
QN01	4822 130 60839	Transistor	2SC2458(Y, GR)		
QN02	4822 209 83312	IC	TA7317P		
Q701	4822 209 73669	IC	NJM5534DD		
Q702	4822 209 73669	IC	NJM5534DD		
Q703	4822 130 43231	Transistor	2SC2240(GR)		
Q704	4822 130 43231	Transistor	2SC2240(GR)		
Q705	4822 130 42949	Transistor	2SA970(GR)		
Q706	4822 130 42949	Transistor	2SA970(GR)		
Q711	4822 130 42999	Transistor	2SA1145(O, Y)		
Q712	4822 130 42999	Transistor	2SA1145(O, Y)		
Q713	4822 130 43283	Transistor	2SC2705(O, Y)		
Q714	4822 130 43283	Transistor	2SC2705(O, Y)		
Q715	4822 209 73673	IC	LA2500		
Q716	4822 209 73673	IC	LA2500		
ΔQ717	4822 130 60117	Transistor	2SC3419(Y)		
ΔQ718	4822 130 60117	Transistor	2SC3419(Y)		
ΔQ719	4822 130 43283	Transistor	2SC2705(O, Y)		
ΔQ720	4822 130 43283	Transistor	2SC2705(O, Y)		
ΔQ721	4822 130 42999	Transistor	2SA1145(O, Y)		
ΔQ722	4822 130 42999	Transistor	2SA1145(O, Y)		
ΔQ723	4822 130 43311	Transistor	2SC3298(O, Y)		
ΔQ724	4822 130 43311	Transistor	2SC3298(O, Y)		

REF. DESIG.	PART NO.	DESCRIPTION	
△ Q725	4822 130 43023	Transistor	2SA1306(O, Y)
△ Q726	4822 130 43023	Transistor	2SA1306(O, Y)
△ Q727	4822 130 43306	Transistor	2SC3182(R, O)
△ Q728	4822 130 43306	Transistor	2SC3182(R, O)
△ Q729	4822 130 43019	Transistor	2SA1265(R, O)
△ Q730	4822 130 43019	Transistor	2SA1265(R, O)
△ Q731	4822 130 43306	Transistor	2SC3182(R, O)
△ Q732	4822 130 43306	Transistor	2SC3182(R, O)
△ Q733	4822 130 43019	Transistor	2SA1265(R, O)
△ Q734	4822 130 43019	Transistor	2SA1265(R, O)
△ Q735	4822 130 43231	Transistor	2SC2240(GR)
△ Q736	4822 130 43231	Transistor	2SC2240(GR)
△ Q737	4822 130 42951	Transistor	2SA970(GR, BL)
△ Q738	4822 130 42951	Transistor	2SA970(GR, BL)
△ Q801	4822 130 61363	Transistor	2SD1913(Q, R)
△ Q802	4822 130 61359	Transistor	2SB1274(Q, R)
△ Q805	4822 130 60107	Transistor	2SA1048(Y, GR)
△ Q806	4822 130 60839	Transistor	2SC2458(Y, GR)
△ Q807	4822 130 60107	Transistor	2SA1048(Y, GR)
△ Q808	4822 130 60839	Transistor	2SC2458(Y, GR)
△ Q810	4822 209 73674	IC	NJM7806FA
△ Q811	4822 130 60107	Transistor	2SA1048(Y, GR)
△ Q812	4822 130 60839	Transistor	2SC2458(Y, GR)
P701-MISCELLANEOUS			
J701	4822 265 30473	Plug, 6P	
J702	4822 265 20205	Plug, 3P	
J703	4822 265 10093	Jack, 3P	
J801	4822 265 30641	Plug, 2P	
J802	4822 265 30639	Plug, 3P	
J804	4822 265 30641	Plug, 2P	
J805	4822 265 30641	Plug, 2P	
J806	4822 265 30641	Plug, 2P	
J807	4822 265 20205	Plug, 3P	
J808	4822 265 20205	Plug, 3P	
J809	4822 265 20205	Plug, 3P	
J810	4822 290 40296	Terminal, Earth	
J811	4822 265 10093	Jack, 3P	
J812	4822 265 10093	Jack, 3P	
J813	4822 265 20205	Plug, 3P	
J814	4822 265 10093	Plug, 3P	
J815	4822 265 10093	Plug, 3P	
△ LN01	4822 280 91103	Relay	
L701	4822 157 51739	Coil	
L702	4822 157 51739	Coil	
P901-POWER SWITCH CIRCUIT BOARD			
△ C901	4822 122 40305	Ceramic Cap. 0.01μF	250V
△ S901	4822 276 12505	Push Switch, Power	

(W01-99)	Assembly and Wiring
(T01-99)	Adjustment
(X01-00)	Correction

(W01-99)	Assembly and Wiring
(T01-99)	Adjustment
(X01-00)	Correction

REF. DESIG.	PART NO.	DESCRIPTION
		P951-POWER TRANSFORMER CIRCUIT BOARD
C951	4822 122 30043	Ceramic 0.01μF +80% -20% [N]
C952	4822 122 30043	Ceramic 0.01μF +80% -20% [N]
ΔF001	4822 253 30027	Fuse 3.15A 250V
J951	4822 256 30329	Jack, Fuse Clip
J952	4822 267 30978	Jack, Fuse Clip
ΔL001	4822 146 21377	Power Transformer

NOTE ON SAFETY:
Symbol Δ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol Δ. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

10. TECHNICAL SPECIFICATIONS (DIN)

Audio Section

IHF Dynamic Power

2 Ohms	220 W
4 Ohms	160 W
8 Ohms	125 W

Power Output per Channel

DIN 4 Ohms at 1 kHz	130 W
RMS 4 Ohms	120 W
DIN 8 Ohms at 1 kHz	110 W
RMS 8 Ohms	100 W

Total Harmonic Distortion at RMS 8 Ohms 0.02%

I.M. Distortion 0.02%

Damping Factor 8 Ohms (1 kHz) 100

MM Cartridge Input

Frequency Response (IEC RIAA)	±0.5 dB
Signal To Noise Ratio (A weighted)	86 dB
Input Impedance	47 kOhms
Input Sensitivity	2.5 mV

MC Cartridge Input

Input Sensitivity	250 µV
Input Impedance	100 Ohms
Signal To Noise Ratio (A weighted)	72 dB

CD-Tuner-Tape Input

Input Impedance	20 kOhms
Input Sensitivity	150 mV
Frequency Response	10 Hz – 70 kHz
Signal To Noise Ratio (A weighted, IHF 202)	88 dB
(A weighted, VR MAX)	103 dB

Output Voltage and Impedance

Tape Out [Phor . . .M) 5.0 mV 1 kHz Input]	300 mV/1 kOhms
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Channel Separation [CD Input]. (IHF 202, 1 kHz) >70 dB

Digital Section

Frequency Response (10 Hz – 20 kHz)	±1.0 dB
Total Harmonic Distortion	0.0035%
Signal To Noise Ratio (A weighted at TAPE OUT)	103 dB
Dynamic Range	96 dB

General

Power Requirements N and T versions	220/240 V AC, 50/60 Hz
E version	110/120/220/240 V AC, 50/60 Hz
Power Consumption at Rated Output, both channels operating	200 W
Dimensions (W × H × D)	420 × 132 × 334 mm
Weight	13 kg

“SERVICE INFORMATION IS FOR USE BY QUALIFIED PERSONNEL ONLY — ANY MISADJUSTMENT OR MISALIGNMENT MAY BE TREATED AS A NON-WARRANTY REPAIR BY ANY MARANTZ SERVICE CENTRE —”

Kind of Common Parts

RESISTOR

- R*** (1) GD05 140, Carbon film fixed resistor, ±5% 1/4W
R*** (2) GD05 160, Carbon film fixed resistor, ±5% 1/6W

C*** : CERAMIC CAP.

- (1) DD1 370, Ceramic condenser,
disc type (titan condenser)
Temp. coeff. P350 to N1000 50V

C*** : CERAMIC CAP.

- (1) DK16 300, High dielectric constant ceramic
condenser, disc type (titan variable)
Temp. chara. 2B4 50V



C*** : ELECTROLY CAP. ()/FILM CAP. ()

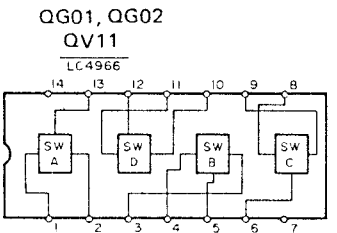
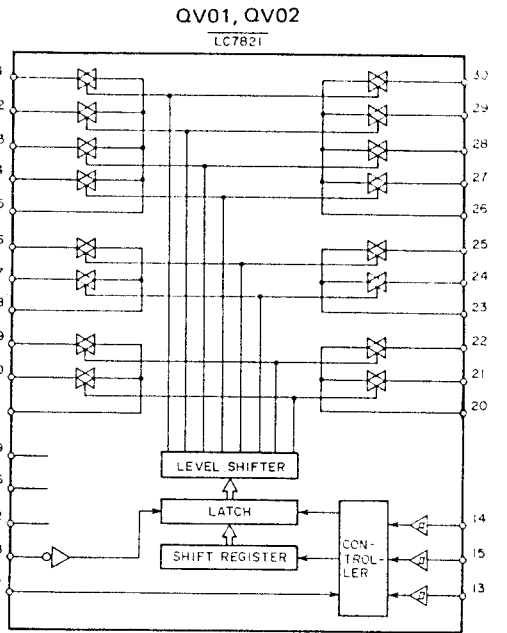
- (1) EA 10, Electrolytic condenser,
one-way lead type, tolerance ±20%
(2) DF15 350, Plastic film condenser,
one-way type, Mylar, ±5% 50V

* In case of ordering the common parts, please establish the correct parts number of 10 figures by the procedure “ASSIGNMENT OF COMMON PARTS CODES”

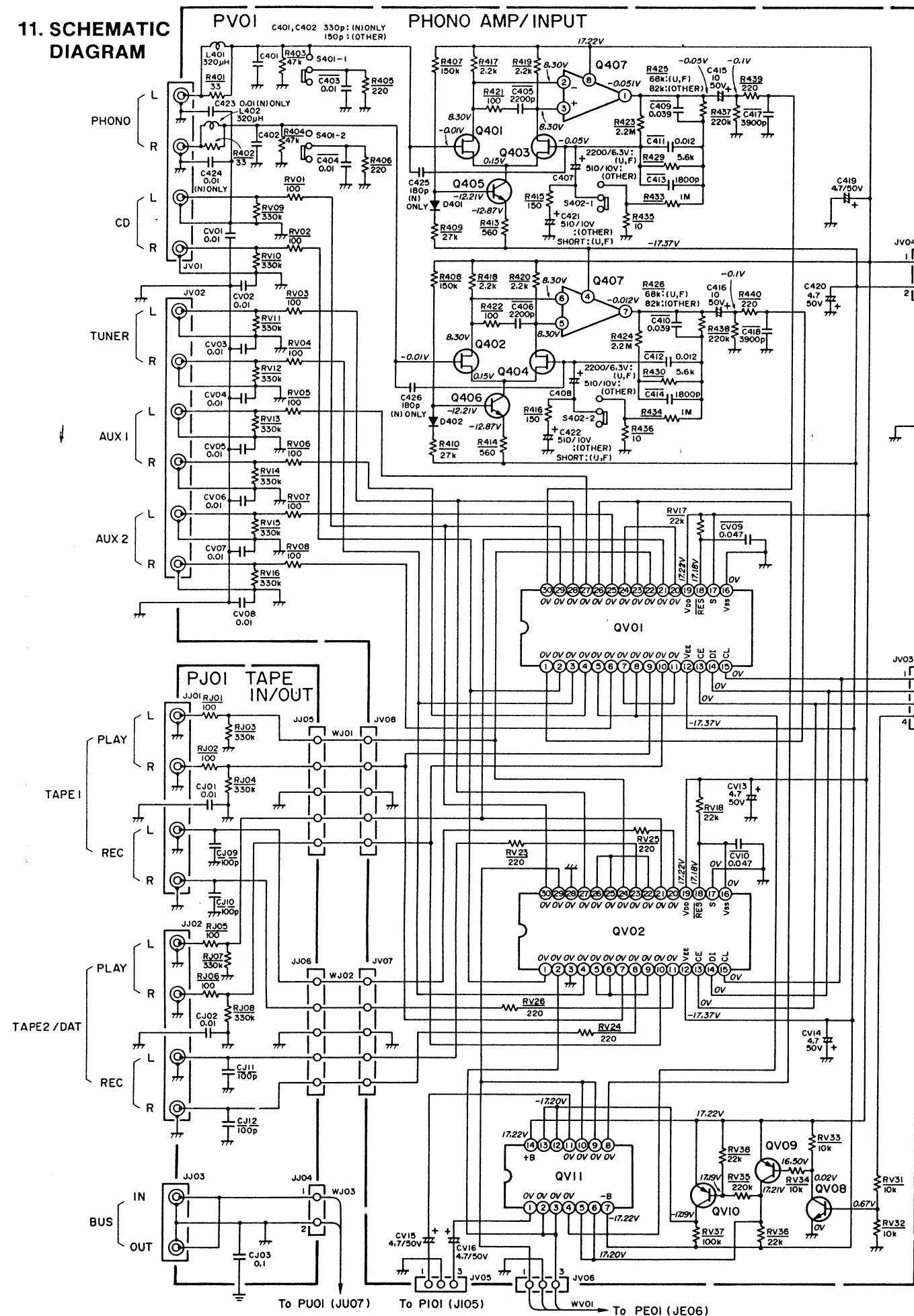
Components and wiring are subject to change for modification without notice.

NOTE ON SAFETY:

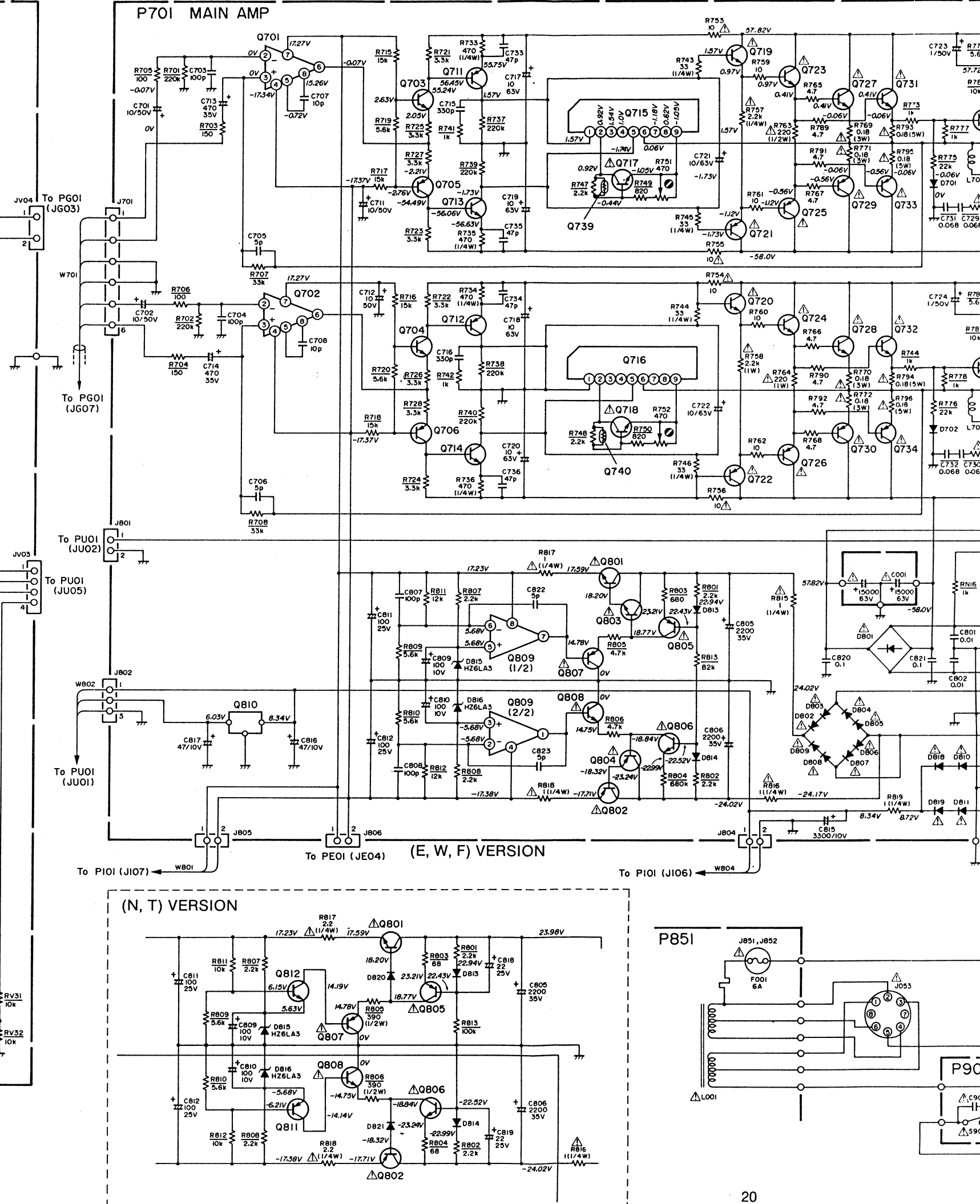
Symbol  Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

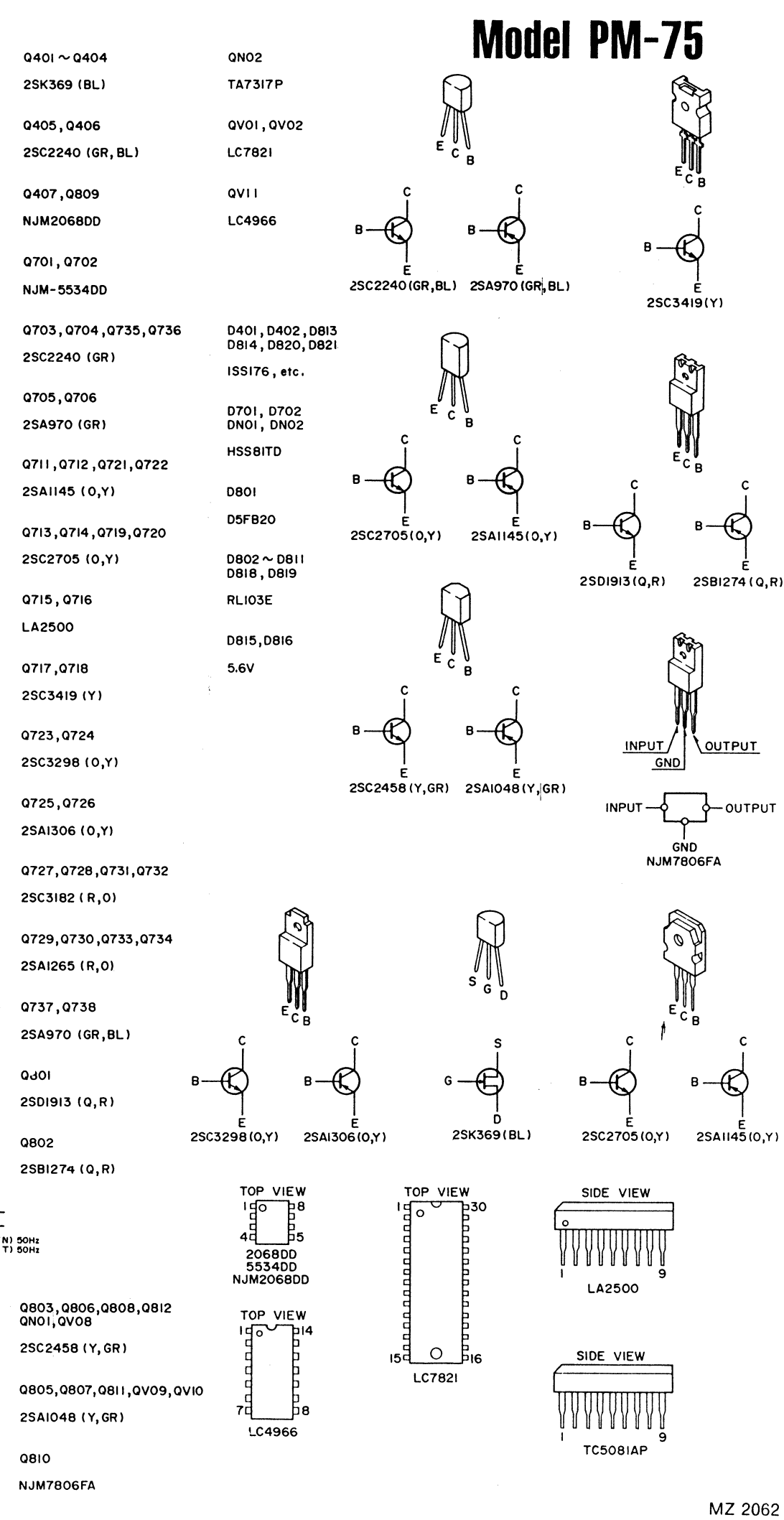
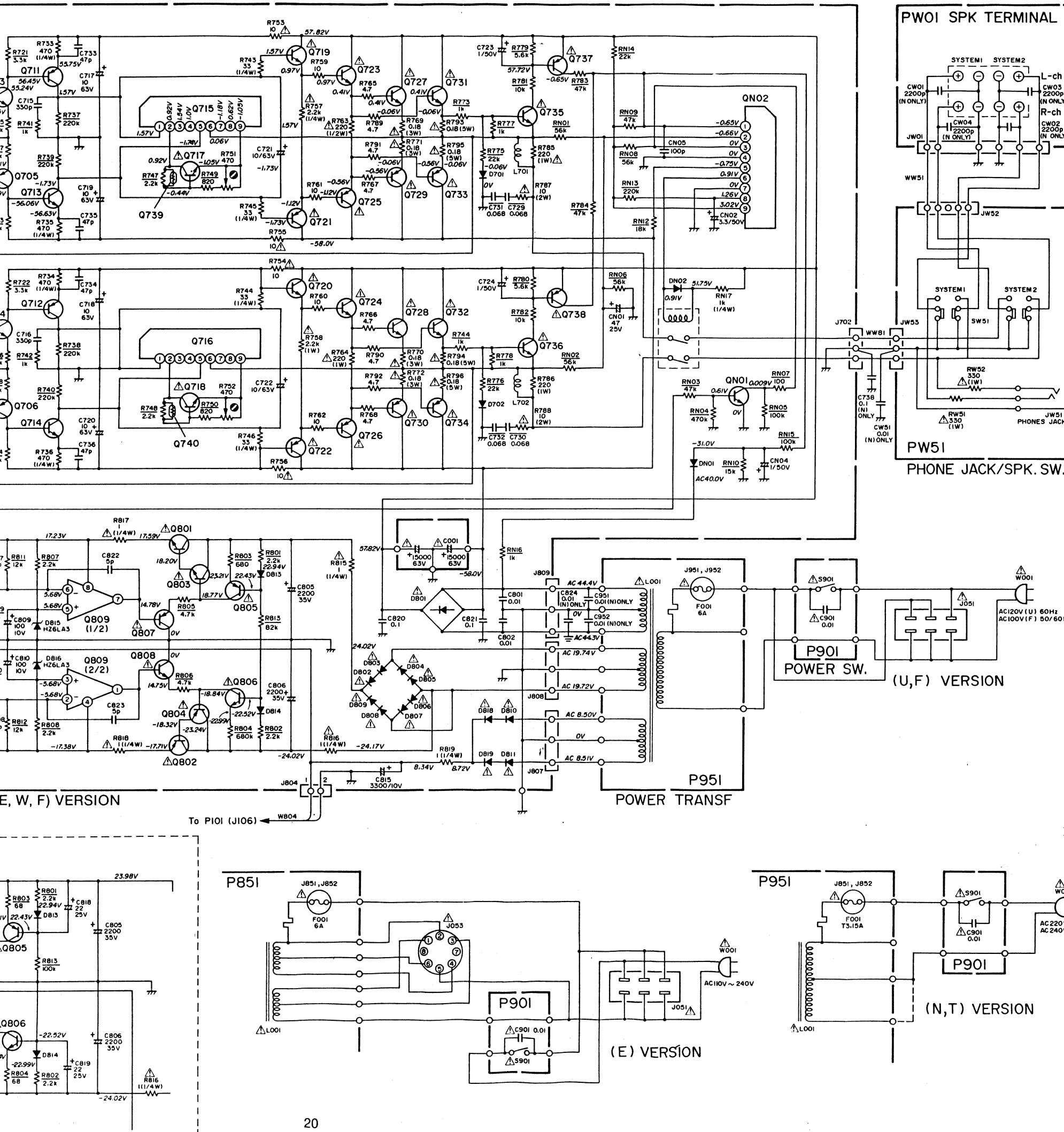


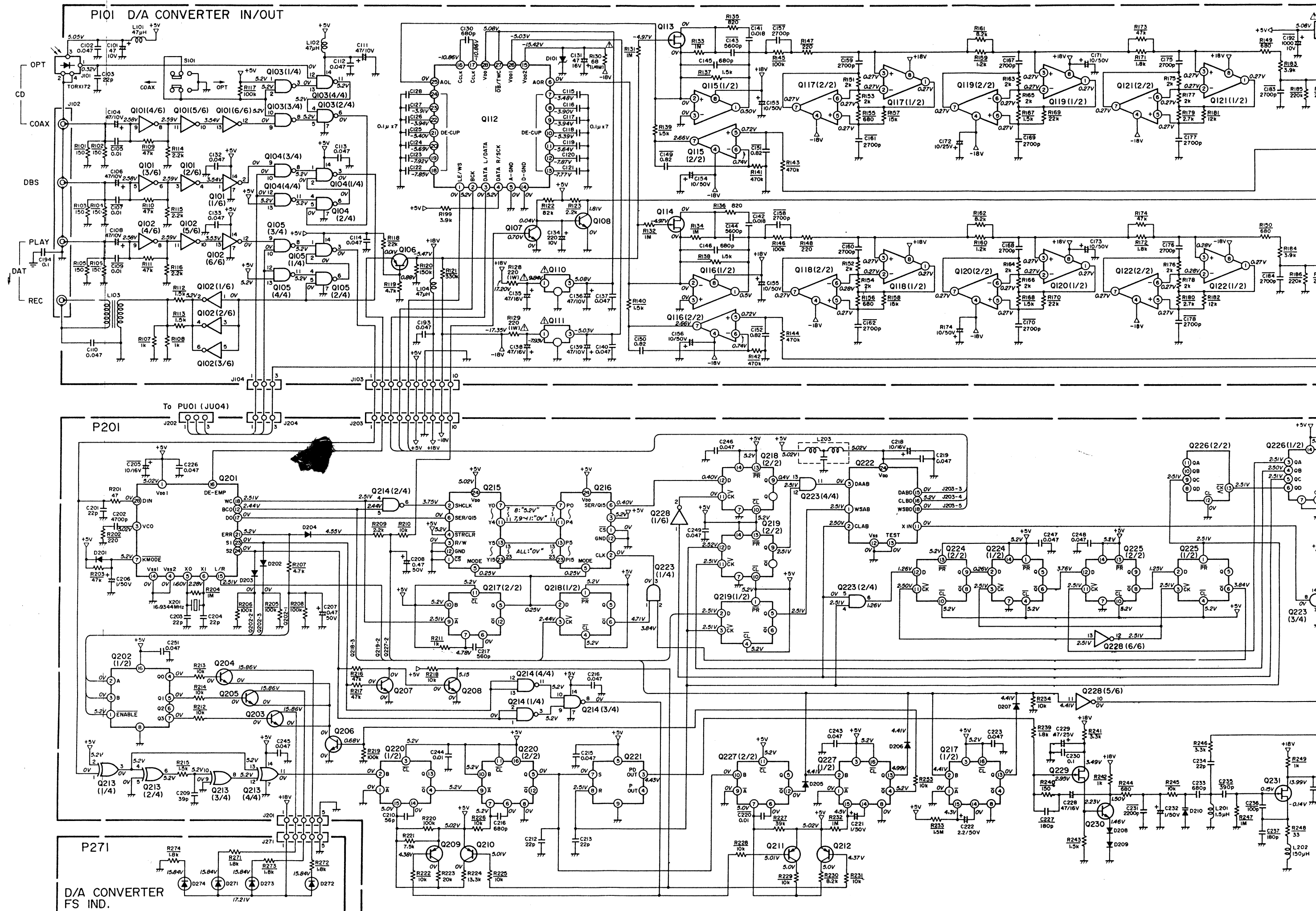
11. SCHEMATIC DIAGRAM

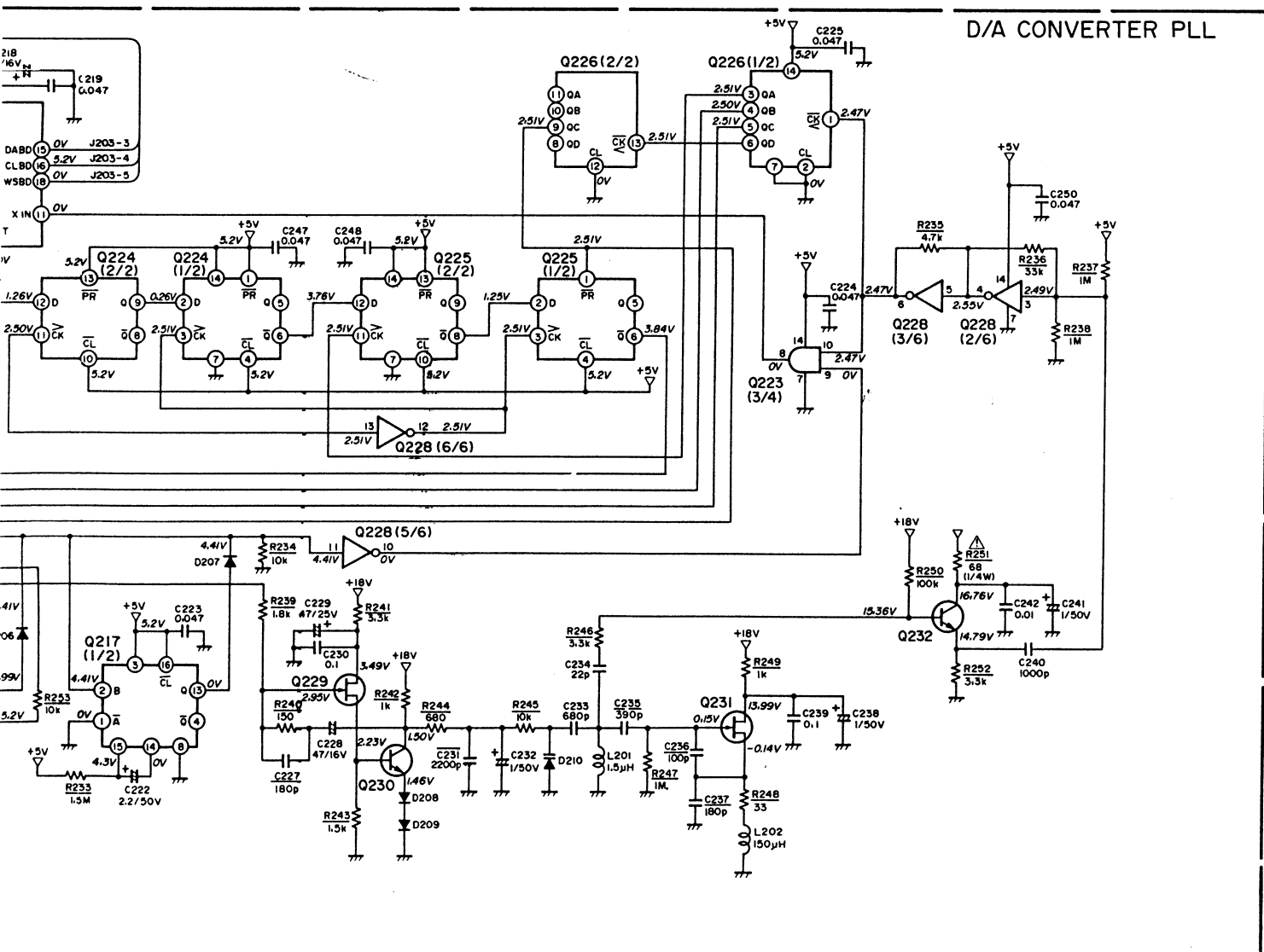
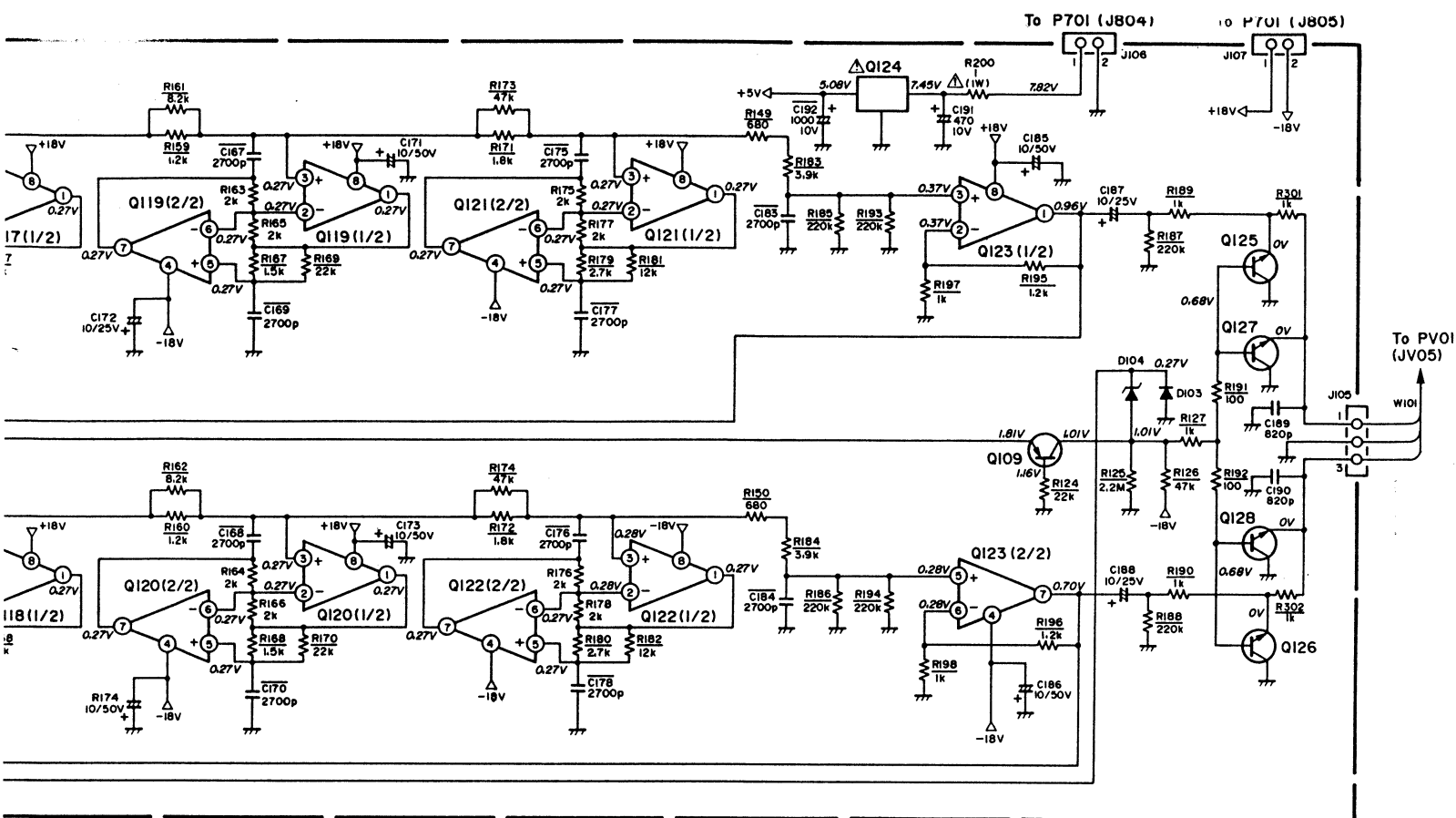


P701 MAIN AMP









Q101, Q102, Q228
TC74HC04P

Q103, Q104, Q105, Q214
TC74HC00P

Q106, Q109, Q209~Q212
2SA1175 (FF, EF)

Q107, Q108, Q203~Q208
Q230, Q232
2SC2458 (Y, GR)

Q110
NJM78L05A

Q111
NJM79L05A

Q112
TDA1541A

Q113, Q114, Q229
2SK372 (GR, BL)

Q115, Q116, Q123
NJM-2068DD

Q117~Q122
NJM4560DD

Q124
NJM7805FA

Q125, Q126, Q127, Q128
2SC2878

Q201
YM3623B

Q202
4555BP

Q213
TC74HC86P

Q215
HD74HC673

Q216
HD74HC674

Q217, Q220, Q227
TC74HC123P

Q218, Q219, Q224, Q225
TC74HC74P

Q221
TC5081AP

Q222
SAA7220P/B

Q226
TC74HC393P

Q231
2SK161 (GR)

D101
15V

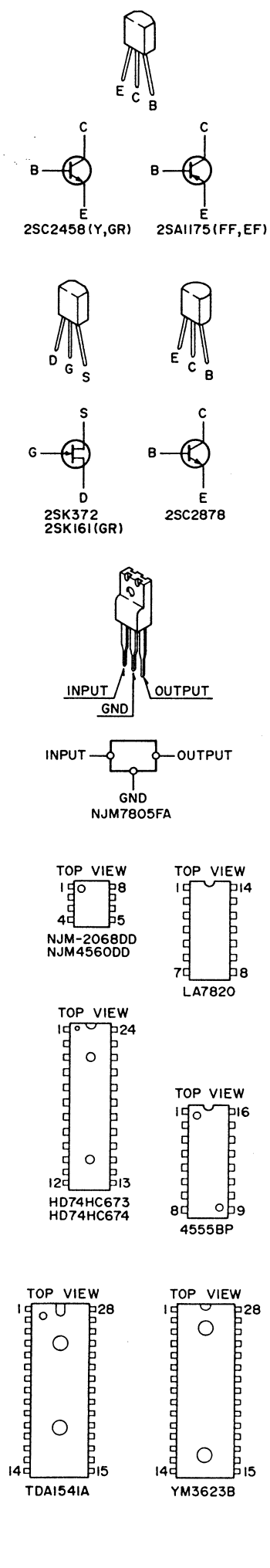
D102, D103, D201~D207
ISSI76, etc.

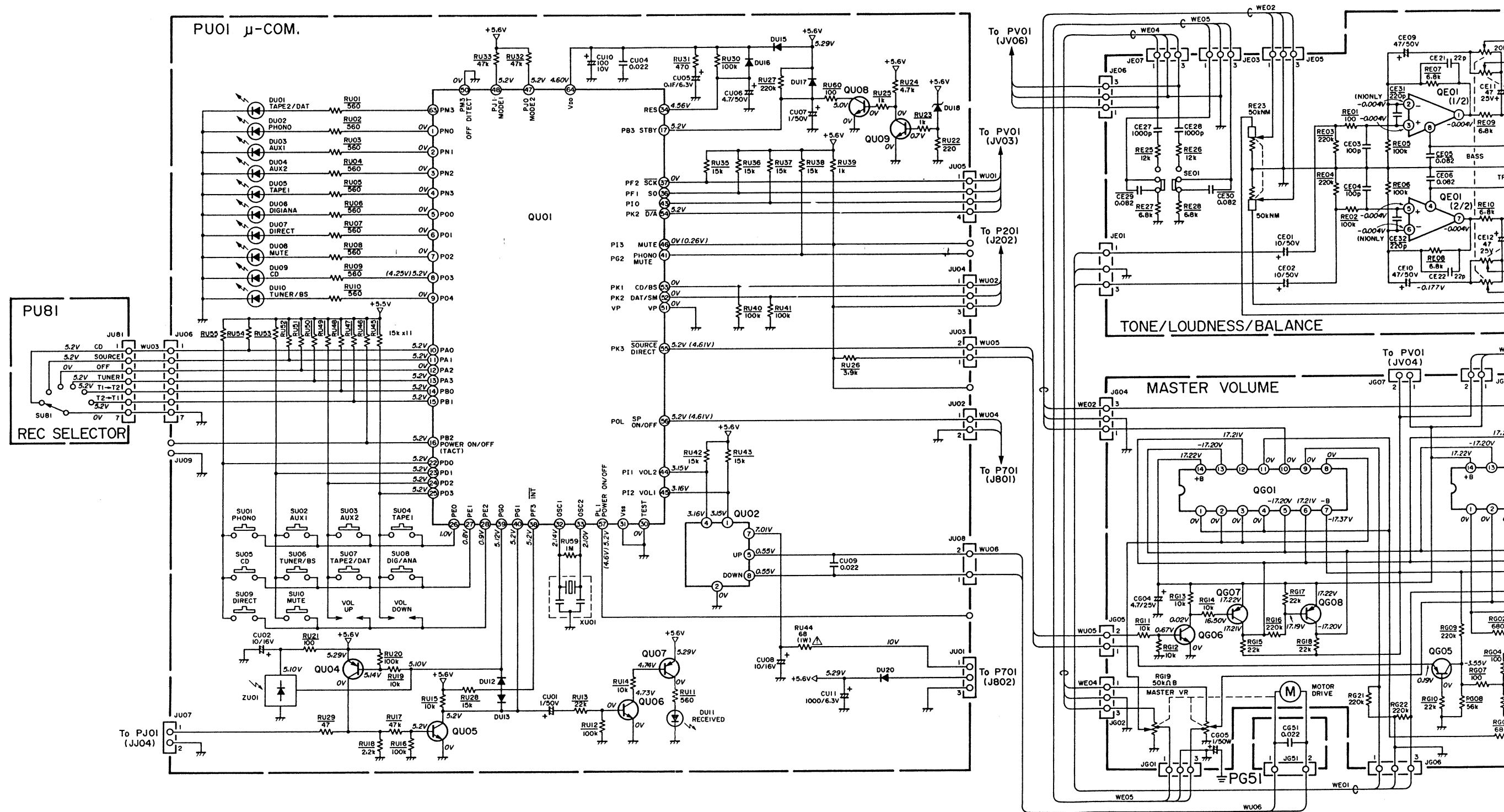
D104
3.9V

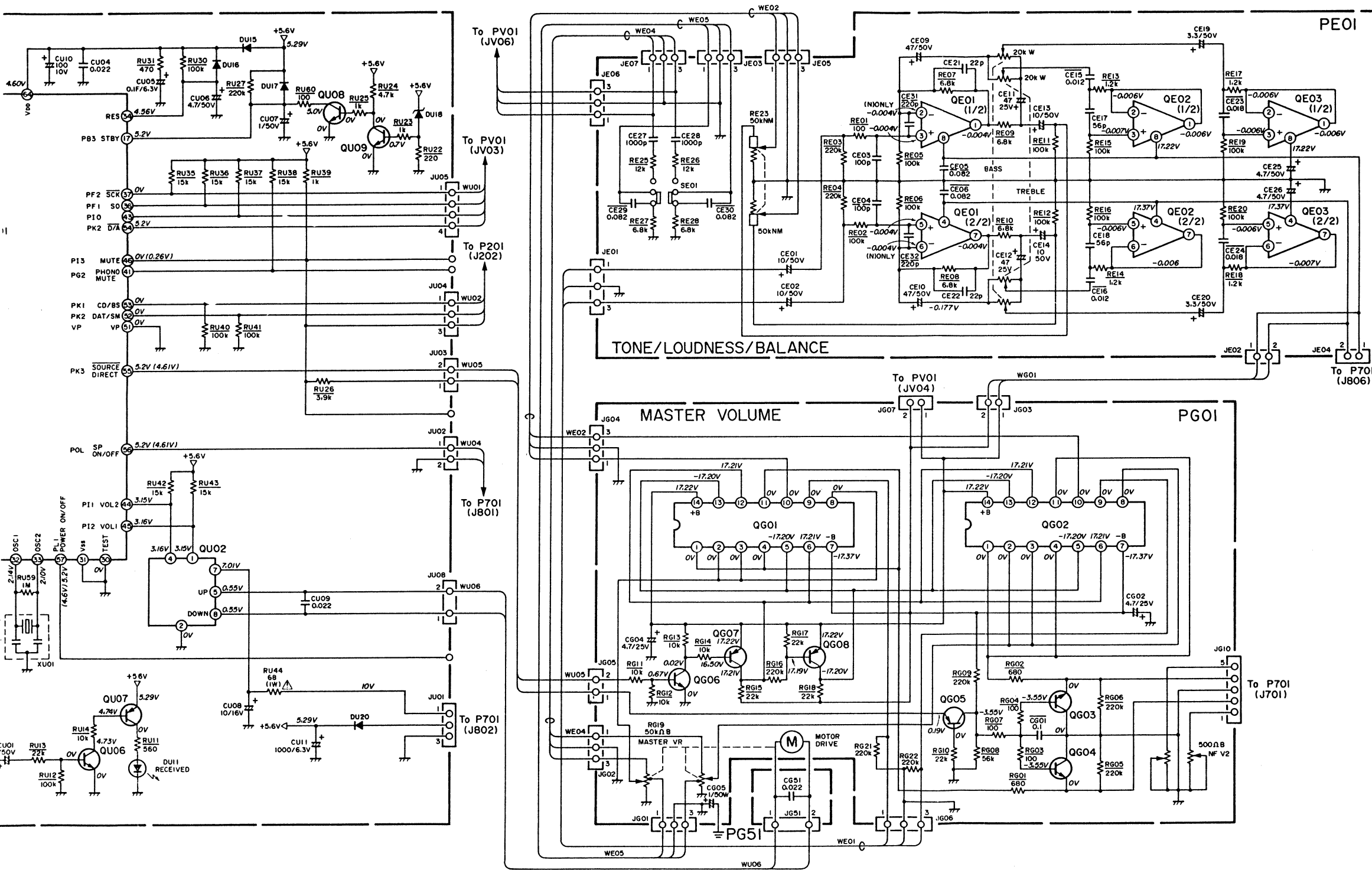
D208, D209
MA27A

D210
SVC32ISP

D271~D274
LT3D8B







- QE01~QE03
NJM4558DD
- QG01, QG02
LC4966
- QG03, QG04
2SC2878
- QG05, QG07, QG08
QU04, QU07
2SA1048 (Y, GR)
- QU06, QU05, QU06
QU08, QU09
2SC2458 (Y, GR)
- QU01
LC6554H
- QU02
LB1630
- DU01~DU11
LT3D88
- DU12, DU13, DU16, DU17
ISS176, etc.
- DU18
3.6V
- DU15, DU20
S5688G
- TOP VIEW
1 8
4 5
LB1630
NJM4558DD
- TOP VIEW
1 14
7 8
LC4966
- TOP VIEW
1 64
32 33
LC6554H